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Filing Date	09/11/2003
First Named Inventor	Sehat Sutardja
Art Unit	2644
Examiner Name	Andrew C. Flanders
Attorney Docket Number	MP0062

ENCLOSURES ***(check all that apply)***

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  - ☒ Fee Attached
- ☐ Amendment / Reply
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  - ☐ Affidavits/declaration(s)
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Firm	Harness, Dickey & Pierce, P.L.C.		
Signature			
Printed Name	Damian M. Aquino		
Date	August 18, 2006	Reg. No.	54,964

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FEE TRANSMITTAL for FY 2006

Effective 2/8/2006. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT ($) 620

Complete if Known	
Application Number	09/659,693
Filing Date	09/11/2000
First Named Inventor	Sehat Sutardja
Examiner Name	Andrew C. Flanders
Art Unit	2644
Attorney Docket No.	MP0062

METHOD OF PAYMENT *(check all that apply)*

☒ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit Account Number: 08-0750

Deposit Account Name: Harness, Dickey & Pierce, PLC

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FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
1011	300	2011	150	Utility filing fee	
1012	200	2012	100	Design filing fee	
1013	200	2013	100	Plant filing fee	
1014	300	2014	150	Reissue filing fee	
1005	200	2005	100	Provisional filing fee	

SUBTOTAL (1) ($) 0

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

			Extra Claims		Fee from below	=	Fee Paid
Total Claims		-20 **	0	X		=	0
Independent Claims		-3 **	0	X		=	0
Multiple Dependent						=	0

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description
1202	50	2202	25	Claims in excess of 20
1201	200	2201	100	Independent claims in excess of 3
1203	360	2203	180	Multiple dependent claim, if not paid
1204	200	2204	100	** Reissue independent claims over original patent
1205	50	2205	25	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) ($) 0

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FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	120	2251	60	Extension for reply within first month	120
1252	450	2252	225	Extension for reply within second month	
1253	1020	2253	510	Extension for reply within third month	
1254	1,590	2254	795	Extension for reply within fourth month	
1255	2,160	2255	1080	Extension for reply within fifth month	
1401	500	2401	250	Notice of Appeal	
1402	500	2402	250	Filing a brief in support of an appeal	500
1403	1000	2403	500	Request for oral hearing	
1452	500	2452	250	Petition to revive – unavoidable	
1453	1500	2453	750	Petition to revive – unintentional	
1462	400	1462	400	Petition fee under 37 CFR 1.17(f)	
1463	200	1463	200	Petition fee under 37 CFR 1.17(g)	
1464	130	1464	130	Petition fee under 37 CFR 1.17(h)	
1807	50	1807	50	Processing fee under 37 CFR 1.17 (q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	790	2809	395	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	790	2810	395	For each additional invention to be examined (37 CFR § 1.129(b))	
1801	790	2801	395	Request for Continued Examination (RCE)	
				Other fee (specify) ____	

Reduced by Basic Filing Fee Paid SUBTOTAL (3) ($)620

4. SEARCH/EXAMINATION FEES

1111	500	2111	250	Utility Search Fee	
1112	100	2112	50	Design Search Fee	
1113	300	2113	150	Plant Search Fee	
1114	500	2114	250	Reissue Search Fee	
1311	200	2311	100	Utility Examination Fee	
1312	130	2312	65	Design Examination Fee	
1313	160	2313	80	Plant Examination Fee	
1314	600	2314	300	Reissue Examination Fee	

SUBTOTAL (4) ($)0

SUBMITTED BY					Complete *(if applicable)*
Name (Print/Type)	Damian M. Aquino	*Registration No. (Attorney/Agent)*	54,964	*Telephone*	248-641-1600
Signature				*Date*	August 18, 2006

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08/23/2006 WABDELR1 00000022 09659693 120.00 OP
01 FC:1251

MP0062 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appeal No. _____

Application No.:	09/659,693
Filing Date:	September 11, 2000
Appellant:	SUTARDJA
Conf. No.:	
Group Art Unit:	2644
Examiner:	Andrew C. Flanders
Title:	METHOD AND APPARATUS FOR RECORDING AND REPRODUCING DIGITAL DATA

BRIEF ON APPEAL ON BEHALF OF APPELLANTS

Mail Stop Appeal Brief-Patents
P.O. Box 1450
Alexandria, VA 22313-1450

August 16, 2006

Sir:

This appeal is from the decision of the Patent Examiner dated February 23, 2006, rejecting claims 1-23, 25, 26, 28-48, 97-112, and 169-172, which are reproduced in Appendix A of this Appeal Brief.

08/23/2006 WABDELR1 00000022 09659693
02 FC:1402 500.00 OP

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BRIEF ON APPEAL ON BEHALF OF APPELLANT

In support of the Notice of Appeal filed May 18, 2006, appealing the Examiner's Rejection of each of claims 1-23, 25, 26, 28-48, 97-112, and 169-172, mailed February 23, 2006, which appear in the attached Appendix A, Appellant hereby provides the following remarks.

I. REAL PARTY IN INTEREST

The present application is assigned to Marvell International Ltd. as recorded in the Patent and Trademark Office at Reel 011110, Frame 0596, Reel 011113, Frame 0371, and Reel 011560, Frame 0904.

II. RELATED APPEALS AND INTERFERENCES

Appeals are currently pending with respect to U.S. Application Serial No. 10/184,505, filed June 26, 2002, and U.S. Application Serial No. 10/184,302, filed June 26, 2002. The undersigned, the Assignee and the Appellant do not know of any other appeals or interferences which would directly affect or that would be directly affected by, or have a bearing on, the Board's decision in this Appeal.

III. STATUS OF THE CLAIMS

Claims 1-23, 25, 26, 28-48, 97-112, and 169-172 are reproduced in the attached Appendix A and are the claims on Appeal. Each of these claims is currently pending in the application.

IV. STATUS OF THE AMENDMENTS

There are no pending amendments filed subsequent to a final rejection.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The present invention relates generally to an apparatus for recording and reproducing digital data. More particularly, the present invention relates to a media player/recorder having a miniature hard disk drive for storing digital data. (Paragraph [0003] of the present invention).

In conventional media players (e.g. an MP3 player) the amount of music data stored in the MP3 player is limited by the amount of flash memory installed in the MP3 player. Increasing the flash memory increases the overall cost of the MP3 player and increases energy required to operate the MP3 player. Consequently, operating time is decreased and/or weight is increased due to additional batteries.

Decoding data (such as a decoding algorithm) is stored either in the flash memory or a read only memory (ROM). When the decoding algorithm is stored in the ROM, typically the ROM must be changed to update, revise or otherwise change the decoding algorithm. For example, it may be necessary for a user to send the entire product (i.e. the MP3 player) to the manufacturer to have the ROM replaced. Additionally, storing multiple decoding algorithms requires a larger ROM. Similarly, when the decoding algorithms are stored in the flash memory, storing multiple decoding algorithms requires a larger flash memory. Increasing the size of either the ROM or the flash memory increases the cost and energy consumption of the device. (Paragraphs [0006] and [0007] of the present invention).

As illustrated in Figures 2 and 3 of the present application, exemplary embodiments of the present invention are directed to a media player/recorder. As recited in independent claim 1, the media player/recorder includes a storage device (e.g., disk drive 230) to store compressed media data. [*see* present application, page 5, lines 25-29] The media player/recorder includes a programmable processor (e.g., processor 300) that is programmed to *both* retrieve and decompress the media data. [*see* present application, page 7, lines 14-17, page 8, lines 8-32 and page 9, lines 21-33] The media player/recorder includes a memory (e.g., memory 202) to store the data retrieved by the processor. [*see* present application, page 6, lines 3-16] The media player/recorder also includes an output circuit (e.g., output circuit 216) to output the

decompressed media data from the processor. [*see* present application, page 9, line 33 – page 10, line 2] By combining the functionality of *both* the retrieval and the decompression of the media data into a single device (the programmable processor), an apparatus including the media/player recorder can be fabricated at lower cost and have lower energy consumption. [*see* present application, page 8, lines 1-2]

According to an exemplary embodiment, the programmable processor can comprise a digital signal processor (e.g., DSP/MPU 343) to *both* control the storage device and to decompress the media. By using only one DSP rather than two (or more) to both control an associated storage device and to decompress media data, the cost of fabrication and the amount of energy consumption of any device incorporating such can be reduced. [*see* present application, page 8, lines 1-2]

According to a further exemplary embodiment, the storage device can store a process for decompressing compressed media data for a selected compression format. [*see* present application, page 7, 17-22] Storing the decompression algorithms on the storage device advantageously minimizes the size of ROM required for the device and its energy consumption. [*see* present application, page 7, lines 19-20] Additionally, such a feature allows future decompression (and compression) formats to be easily implemented for the media player/recorder. [*see* present application, page 7, lines 21-22] Furthermore, the digital signal processor of the media player/recorder can determine the compression format and select and retrieve an appropriate process for decompressing the media data from the storage device. [*see* present application, page 6, lines 22-25]

According to an additional exemplary embodiment, the digital signal processor can comprise an encoder to compress received media data. [*see* present application, page 9, lines 16-20] Thus, the digital signal processor can be operable to compress media data, *and* decompress media data, *and* control the storage device, *and* retrieve media data stored in the storage device. As indicated previously, using a single DSP to perform all of these functions saves on fabrication costs and energy consumption.

More particularly, conventional media players include separate processors for performing decoding and hard disk controlling. Processing is generally done sequentially, with little overlap. For example, a first processor can control the reading of

a block of data from a hard disk. Once read, the first processor and hard disk are shut down. A second processor then can perform the decoding of the data. Thus, one processor will be working while the other is not, as they are run at alternate times. In addition, the use of multiple processors requires greater energy, a larger die space (for the multiple chips on a die), and, therefore, increased manufacturing costs. Furthermore, each processor may require the payment of licensing fees to the third-party manufacturer for use of that processor, so that the use of more processors would require the payment of more licensing fees.

In contrast, exemplary embodiments of the present invention use a single processor or digital signal processor to perform multiple functions. Using a single processor or digital signal processor results in a reduction in energy consumption and utilization of space (since there is a fewer number of chips used), a corresponding decrease in manufacturing costs, and a potential reduction in licensing fees.

As recited in independent claim 11, a media player/recorder includes a programmable processor (e.g., processor 300) that includes a digital signal processor (e.g., DSP/MPU 343) that uses the *same* circuit to *both* control a storage device (e.g., disk drive 230) and to decompress the media data stored in a memory (e.g., memory 202). [*see* present application, page 7, lines 14-17, page 8, lines 8-32 and page 9, lines 21-33] As noted previously, the use of a single DSP to both control a storage device and to decompress media data saves on the cost of fabrication and the amount of energy consumption of any device incorporating such. [*see* present application, page 8, lines 1-2]

Independent claim 20 is directed to an integrated circuit to control a media player/recorder. The integrated circuit includes a storage controller (e.g., hard disk controller 342), a read channel (e.g., read channel 341) and a digital signal processor (e.g., DSP/MPU 343). The digital signal processor controls the storage device, *and* transfers compressed media data read by the read channel to the memory, *and* decompresses the media data stored in the memory, and converts the decompressed media data to an analog signal. [*see* present application, page 7, lines 14-17, page 8, lines 8-32 and page 9, lines 21-33] Again, by using a single DSP, rather than two or more, the cost of fabrication and the amount of energy consumption can be reduced.

Independent claim 22 is directed to a method of playing and recording media data from a media player/recorder. According to the method, compressed media data stored on a storage device is retrieved using a circuit (e.g., processor 300). The compress media data is decompressed using the *same* circuit (e.g., processor 300). [*see* present application, page 7, lines 14-17, page 8, lines 8-32 and page 9, lines 21-33]

Independent claim 171 is directed to a method of playing and recording media data from a media player/recorder. According to the method, media data is stored. The media data comprises a plurality of selections. First portions of at least one of the plurality of selections of the media data are transferred to a memory (e.g., memory 202). The first portions of the at least one of the plurality of sections of the media data are output from the memory (e.g., memory 202). According to an exemplary embodiment, when a user selects a particular one of the plurality of selections, a remaining portion of the particular one of the plurality of selections is retrieved, and then the portion and remaining portion of the particular one of the plurality of selections are output. [*see* present application, page 11, line 29 – page 12, line 13]

Independent claim 28 of the present application recites the features of "storage means for storing compressed media data." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a storage device, such as, for example, disk drive 230 illustrated in Figures 2-4 and described at page 5, lines 25-29.

Independent claim 28 recites the feature of "programmable processing means programmed for retrieving the media data stored in said storage means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a programmable processor, such as, for example, processor 300 illustrated in Figure 2-4 and described at page 7, lines 14-17, page 8, lines 8-32 and page 9, lines 21-33.

Independent claim 28 recites the feature of "memory means for storing the media data retrieved by said processing means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown

as, for example, a memory, such as, for example, memory 202 illustrated in Figures 2-4 and described at page 6, lines 3-16.

Independent claim 28 recites the feature of "output means for outputting the decompressed media data from said processing means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, an output circuit, such as, for example, output circuit 216 illustrated in Figures 2-43 and described at page 9, line 33 to page 10, line 2.

Dependent claim 30 recites the feature of "interface means responsive to said processing means for communicating with an external device." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, an interface circuit, such as, for example, interface circuit 206 illustrated in Figure 2-4 and described at page 5, lines 21-25.

Dependent claim 31 recites that the processing means comprises "digital signal processing means for controlling said storage means and for decompressing the media data stored in said memory means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a digital signal processor (DSP), such as, for example, DSP/MPU 343 illustrated in Figures 3 and 5 and described at page 7, lines 5-14.

Dependent claim 32 recites that the processing means comprises a single integrated circuit comprising the feature of "storage controller means responsive to said digital signal processing means for controlling said storage means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a storage controller, such as, for example, hard disk controller (HDC) 342 illustrated in Figures 3 and 5 and described at page 7, lines 5-9.

Dependent claim 32 recites that the processing means comprises a single integrated circuit comprising the feature of "read channel means for reading data from said storage means . . . ." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a read channel, such as, for example, read channel 341 illustrated in Figures 3 and 5 and described at page 7, lines 5-9.

Dependent claim 33 recites that the digital signal processing means comprises "a decoding means for decompressing the media data stored in said memory means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a decoder, such as, for example, codec 348 illustrated in Figures 3 and 5 and described at page 7, lines 17-20 and page 9, lines 16-20.

Dependent claim 37 recites the feature of "input means for receiving media data." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, an input circuit, such as, for example, input 214 illustrated in Figures 2-4 and described at page 5, lines 30-33.

Independent claim 38 of the present application recites the features of "storage means for storing compressed media data." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a storage device, such as, for example, disk drive 230 illustrated in Figures 2-4 and described at page 5, lines 25-29.

Independent claim 38 recites the feature of "processing means for retrieving the media data stored in said storage means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a processor, such as, for example, processor 300 illustrated in Figure 2-4 and described at page 7, lines 14-17, page 8, lines 8-32 and page 9, lines 21-33.

Independent claim 28 recites the feature of "output means for outputting the decompressed media data from said processing means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, an output circuit, such as, for example, output circuit 216 illustrated in Figures 2-43 and described at page 9, line 33 to page 10, line 2.

Independent claim 38 recites that the processing means comprises "digital signal processing means and uses the same circuit for controlling said storage means and for decompressing the media data stored in said memory means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a digital signal processor (DSP), such as, for

example, DSP/MPU 343 illustrated in Figures 3 and 5 and described at page 7, lines 5-14.

Dependent claim 40 recites the feature of "interface means responsive to said processing means for communicating with an external device." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, an interface circuit, such as, for example, interface circuit 206 illustrated in Figure 2-4 and described at page 5, lines 21-25.

Dependent claim 41 recites that the processing means comprises a single integrated circuit comprising the feature of "storage controller means responsive to said digital signal processing means for controlling said storage device." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a storage controller, such as, for example, hard disk controller (HDC) 342 illustrated in Figures 3 and 5 and described at page 7, lines 5-9.

Dependent claim 41 recites that the processing means comprises a single integrated circuit comprising the feature of "read channel means for reading data from said storage means . . . ." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a read channel, such as, for example, read channel 341 illustrated in Figures 3 and 5 and described at page 7, lines 5-9.

Dependent claim 42 recites that the digital signal processing means comprises "decoding means for decompressing the media data stored in said memory means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a decoder, such as, for example, codec 348 illustrated in Figures 3 and 5 and described at page 7, lines 17-20 and page 9, lines 16-20.

Dependent claim 46 recites the feature of "input means for receiving media data." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, an input circuit, such as, for example, input 214 illustrated in Figures 2-4 and described at page 5, lines 30-33.

Independent claim 47 of the present application recites an integrated circuit for controlling a media player/recorder including the feature of "digital signal processing means for controlling the storage means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a processor, such as, for example, DSP/MPU 343 illustrated in Figures 3 and 5 and described at page 7, lines 5-14.

Independent claim 47 recites the feature of "storage controller means responsive to said digital signal processing means." For purposes of illustration, the structure described in the specification as corresponding to the claimed feature can be shown as, for example, a storage controller, such as, for example, hard disk controller (HDC) 342 illustrated in Figures 3 and 5 and described at page 7, lines 5-9.

Independent claim 47 recites the feature of "read channel means . . . for reading the compressed media data from the storage means . . . ." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a read channel, such as, for example, read channel 341 illustrated in Figures 3 and 5 and described at page 7, lines 5-9

Independent claim 47 recites that the digital signal processing means comprises "a decoding means for decompressing the media data stored in said memory means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a decoder, such as, for example, codec 348 illustrated in Figures 3 and 5 and described at page 7, lines 17-20 and page 9, lines 16-20.

Independent claim 95 of the present application recites an integrated circuit for controlling a media player/recorder including the feature of "digital signal processing means for controlling the storage means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a processor, such as, for example, DSP/MPU 343 illustrated in Figures 3 and 5 and described at page 7, lines 5-14.

Independent claim 95 recites the feature of "storage controller means responsive to said digital signal processing means." For purposes of illustration, the structure described in the specification as corresponding to the claimed feature can be shown as,

for example, a storage controller, such as, for example, hard disk controller (HDC) 342 illustrated in Figures 3 and 5 and described at page 7, lines 5-9.

Independent claim 95 recites the feature of "read channel means . . . for reading the compressed media data from the storage means . . . ." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a read channel, such as, for example, read channel 341 illustrated in Figures 3 and 5 and described at page 7, lines 5-9

Independent claim 95 recites that the digital signal processing means comprises "a decoding means for decompressing the media data stored in said memory means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a decoder, such as, for example, codec 348 illustrated in Figures 3 and 5 and described at page 7, lines 17-20 and page 9, lines 16-20.

Independent claim 170 of the present application recites the features of "storage means for storing media data." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a storage device, such as, for example, disk drive 230 illustrated in Figures 2-4 and described at page 5, lines 25-29.

Independent claim 170 recites the feature of "memory means for storing data." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a memory, such as, for example, memory 202 illustrated in Figures 2-4 and described at page 6, lines 3-16.

Independent claim 170 recites the feature of "processing means for transferring first portions of at least one of the plurality of selections of the media data from said storage means to said memory means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a processor, such as, for example, processor 300 illustrated in Figure 2-4 and described at page 7, lines 14-17, page 8, lines 8-32 and page 9, lines 21-33.

Independent claim 170 recites the feature of "output means for outputting the first portions of the at least one of the plurality of sections of the media data from said memory means." For purposes of illustration, the structure described in the

specification as corresponding to the claimed function can be shown as, for example, an output circuit, such as, for example, output circuit 216 illustrated in Figures 2-43 and described at page 9, line 33 to page 10, line 2.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Appellant seeks the Board's review of the rejection of:

(a) claims 1-4, 6, 9, 11-13, 15, 18, 22, 23, 28-31, 33, 36, 38-40, 42, 45, 97, 98, 100, 101, 104-107, 109, 110, and 169-172 under 35 U.S.C. § 102(e) as allegedly being anticipated by Birrell (U.S. Patent No. 6,332,175, hereinafter referred to as the Birrell patent);

(b) claims 7, 16, 34, and 43 under 35 U.S.C. § 103(a) as being allegedly unpatentable over the Birrell patent;

(c) claims 5, 14, 20, 32, 41, 47, 99, 102, 103, 108, 111, and 112 under 35 U.S.C. § 103(a) over the allegedly combined teachings of the Birrell patent and Gadre (U.S. Patent No. 6,308,253, hereinafter referred to as the Gadre patent);

(d) claims 8, 17, 25, 35, and 44 under 35 U.S.C. § 103(a) over the allegedly combined teachings of the Birrell patent and Yanagihara (U.S. Patent No. 6,233,393, hereinafter referred to as the Yanagihara patent);

(e) claims 21 and 48 under 35 U.S.C. § 103(a) over the allegedly combined teachings of the Birrell patent and the Gadre patent, and further in view of the Yanagihara patent; and

(f) claims 10, 19, 26, 37, and 46 under 35 U.S.C. § 103(a) over the allegedly combined teachings of the Birrell patent and Terui (U.S. Patent No. 5,903,871, hereinafter referred to as the Terui patent).

VII. ARGUMENTS

A. The Rejections

The rejections that are the subject of this appeal are: a rejection of each of claims 1-4, 6, 9, 11-13, 15, 18, 22, 23, 28-31, 33, 36, 38-40, 42, 45, 97, 98, 100, 101, 104-107, 109, 110, and 169-172 under 35 U.S.C. § 102(e) as allegedly being anticipated by the Birrell patent; a rejection of each of claims 5, 14, 20, 32, 41, 47, 99, 102, 103, 108, 111, and 112 under 35 U.S.C. § 103(a) as allegedly being obvious over the Birrell patent in view of the Gadre patent; and a rejection of each of claims 8, 17, 25, 35, and 44 under 35 U.S.C. § 103(a) as allegedly being obvious over the Birrell patent in view of the Yanagihara patent.

With respect to independent claims 1, 11, 22, 28, and 38, the Examiner alleges that the Birrell patent teaches a media player recorder (FIG. 1) comprising: a storage device to store compressed media data (element 104); a programmable processor which is programmed as a storage controller to retrieve the compressed media data stored in said storage device (element 102); a memory to store the compressed media data retrieved by said programmable processor (element 108), wherein said programmable processor (element 102) is also programmed as a digital signal processor to decompress the compressed media data stored in said memory; and an output circuit to output the decompressed media data from said programmable processor (element 130).

With respect to independent claims 20 and 47 and dependent claims 5, 14, 32, and 41, the Examiner alleges that the Birrell patent teaches an integrated circuit (CPU) to control a media player/recorder having a storage device having stored thereon compressed media data (hard disk), a memory (RAM 108) and an output circuit (audio output jack), said integrated circuit comprising: a programmable processor that is programmed as: a digital signal processor to control the storage device (element 102); a read channel responsive to said storage controller to read the compressed media data from the storage device (element 134), wherein said digital processor transfers the compressed media data read by said read channel to the memory (elements 102 and 108), wherein said digital signal processor comprises a decoder to decompress the

compressed media data stored in said memory (element 102), and wherein said digital signal processor converts the media data decompressed by said decoder to an analog signal (element 126).

The Examiner admits that the Birrell patent "does not explicitly disclose...the storage controller (FIG. 1 element 106) is part of the programmable processor."

In an attempt to allegedly make up for the admitted deficiency of the Birrell patent, the Examiner references the Gadre patent. The Examiner alleges that the Gadre patent "discloses that a significant need has developed for a manner of integrating the functionality of multiple DSP chips onto the same integrated circuit" and that "[t]wo primary integration approaches are often used to implement multiple DSP functions on a given integrated circuit device, a hardware approach and software approach" (citing col. 2, lines 53-67 and col. 2, lines 1-34).[1] The Examiner then alleges that it would have been obvious to one of ordinary skill in the art "to implement Birrell's other features such as the storage controller on a single chip such as Applicant's Claimed processor in the manner as taught by Gadre. One would have been motivated to do so in order to achieve greater performance, lower design and manufacturing costs, reduced component size, and reduced power components."[2]

With respect to dependent claims 8, 17, 25, 35, and 44, the Examiner alleges that the Birrell patent teaches wherein the processor for decompressing compressed data is retrieved from said storage device (citing col. 5, lines 20-25); and wherein said decoder decompresses the media data in accordance with the retrieved process (citing col. 5, lines 20-25).

The Examiner admits that the Birrell patent "does not explicitly disclose "wherein said digital signal processor determines a compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format."[3]

In an attempt to allegedly make up for the admitted deficiency of the Birrell patent, the Examiner references the Yanagihara patent. The Examiner alleges that the Yanagihara patent discloses "wherein the digital signal processor determines a

2 See page 26, line 20 through page 27, line 2 of the February 23, 2006 Office Action.
3 See page 27, lines 7-11 of the February 23, 2006 Office Action.
3 See page 28, lines 12-14 of the February 23, 2006 Office Action.

compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format."

With respect to independent claims 169-172, the Examiner alleges that the Birrell patent teaches a media player/recorder (citing the title and abstract) comprising: a storage device to store media data (element 104), the media data comprising a plurality of selections; a memory (element 108); a processor to transfer first portions of at least one of the plurality of selections of the media data from said storage device to said memory (citing col. 5, lines 5-33, col. 6, lines 14-16, and col. 6, lines 5-28); an output device (element 130); wherein said output device outputs the first portions of the at least one of the plurality of selections of media data from the memory (citing col. 6, lines 5-28); and wherein when a user selects a particular one of said plurality of selections, said processor retrieves a remaining portion of the particular one of said plurality of selections and said output device outputs the portion and remaining portion of the particular one of said plurality of selections (citing col. 5, lines 1-3 and col. 6, lines 5-28).

B. Claim Distinctions

1. Distinctions regarding independent Claims 1, 11, 22, 28, and 38

Applicant respectfully submits that the Birrell patent fails to show, teach, or suggest all of the limitations of Applicant's claims 1, 11, 22, 28, and 38. In particular, the Birrell patent fails to show, teach, or suggest **a programmable processor programmed as both a storage controller** to retrieve compressed media data stored in a storage device **and a digital signal processor** to decompress the compressed media data.

With respect to claim 1, the Examiner alleges that the Birrell patent discloses a programmable processor which is programmed as a storage controller to retrieve compressed media data and as a digital signal processor to decompress the compressed media data. In particular, the Examiner alleges that the processor 102 "transfers data from the disk to RAM."[4] As best understood by Applicant, the Birrell

4 See page 18, lines 3-8 of the February 23, 2006 Office Action.

patent explicitly discloses a disk controller 106 that is distinct and separate from the processor 102. The Birrell patent appears to be absent of any teaching or suggestion of a programmable processor that is programmed as **both the storage controller and the digital signal processor**.

In the Birrell patent, FIG. 1 illustrates a central processing unit (CPU, i.e. a processor) 102, a memory (RAM) 108, and a storage device (disk 104). Applicant respectfully notes that the Birrell patent is directed to copying data from a storage device to a random access memory (RAM 108). An audio player then plays the data directly from the RAM.[5] For example, the CPU 102 decompresses "a portion of the audio data stored in the RAM 108."[6]

As best understood by Applicant, the Birrell patent explicitly discloses **a CPU 102 and a separate disk controller 106** and is completely absent of any teaching or suggestion to provide a programmable processor that is programmed as both a digital signal processor and a storage controller. The Examiner notes that the Birrell patent states that play control logic "initiates the transfer of additional data from disk 104 to RAM 108" at column 6, lines 14-16[7]. Applicant respectfully notes that the cited portion of the Birrell patent merely states that the play control logic "initiates a transfer of additional data," but fails to disclose any functions that are typically associated with a storage controller. In other words, the cited portion of the Birrell patent still appears to be absent of any teaching or suggestion that the CPU 102 is **programmed as a storage controller**. In fact, the Birrell patent instead illustrates that the CPU 102 relies on a disk controller 106 to provide functions typically associated with a storage controller. For example, the Birrell patent discloses "a main non-volatile storage unit 104, preferably a hard disk drive having an associated disk controller 106."[8].

Applicant respectfully submits that the language "initiates the transfer of additional data from disk 104 to RAM 108" is not analogous to being **programmed as a storage controller**, as the CPU 102 clearly relies on the disk controller 106 to function as a storage controller. Applicant further notes that if the CPU 102 was programmed as

5 See Abstract and col. 3, lines 40-58 of the Birrell patent.
6 See column 4, lines 30-32 of the Birrell Patent.
7 See page 18, lines 7-8 of the February 23, 2006 Office Action.
8 See column 4, lines 4-5 of the Birrell patent.

a storage controller, it would be unnecessary to include the disk controller 106.

For anticipation to be present under 35 U.S.C §102(b), there must be no difference between the claimed invention and the reference disclosure as viewed by one skilled in the field of the invention. *Scripps Clinic & Res. Found. V. Genentech, Inc.*, 18 USPQ.2d 1001 (Fed. Cir. 1991). All of the limitations of the claim must be inherent or expressly disclosed and must be arranged as in the claim. *Constant v. Advanced Micro-Devices, Inc.*, 7 USPQ.2d 1057 (Fed. Cir. 1988). Here, the Birrell patent appears to be absent of any suggestion of **a programmable processor which is programmed as both a storage controller to retrieve compressed media data and a digital signal processor to decompress the compressed media data.**

Applicant respectfully submits that claim 1 should be allowable for at least the above reasons. Claims 11, 22, 28, and 38 should be allowable for at least similar reasons.

2. Dependent Claims 2-10, 12-19, 23-27, 29-37, and 39-46

With regard to claims 2-10, 12-19, 23-27, 29-37, and 39-46, these claims are allowable for at least the reasons previously presented with regard to claims 1, 11, 22, 28, and 38, respectively. Accordingly, it is respectfully requested that the rejection of claims 2-10, 12-19, 23-27, 29-37, and 39-46 be overturned.

3. Dependent Claims 97-102 and 104-111

With regard to claims 97-102 and 104-111, these claims are allowable for at least the reasons previously presented with regard to one of claims 1, 11, 22, 28, and 38. Accordingly, it is respectfully requested that the rejection of claims 97-102 and 104-111 be overturned.

4. Dependent Claims 5, 14, 32, and 41

Further with respect to claims 5, Applicant respectfully submits that the combination of the Birrell and Gadre patents is improper. Even if the combination is

proper, the combination nonetheless fails to show, teach, or suggest all of the limitations of Applicant's claim 5. In particular, the combination fails to show, teach, or suggest that the processor comprises **a single integrated circuit**.

Claim 5 recites a programmable processor programmed as a storage controller and a digital signal processor, wherein the processor comprises a single integrated circuit. In other words, a single integrated circuit includes both the storage controller and the digital signal processor. The Examiner alleges that the Gadre patent discloses this limitation at col. 1, lines 53-67.[9]

The Examiner admits that the Birrell patent fails to "disclose these elements within the programmable processor as a single integrated circuit." As best understood by Applicant, the Birrell patent explicitly discloses a disk controller 106 that is distinct and separate from the processor 102. As such, the Birrell patent appears to be absent of any teaching or suggestion of a programmable processor that is programmed as **both the storage controller and the digital signal processor**, wherein **the processor comprises a single integrated circuit** as claim 5 recites.

The Examiner improperly relies on the Gadre patent to suggest a processor that is programmed as both the storage controller and the digital signal processor. In particular, the Gadre patent states that "a significant need has developed for a manner of integrating the functionality of multiple DSP chips onto the same integrated circuit device."[10] As best understood by the Applicant, the Gadre patent is directed to integrating the functionality of **digital signal processing** (DSP) chips[11] and is absent of any teaching or suggestion of combining the functionality of a **storage controller** with the DSP on the same integrated circuit device.

In the Gadre patent, FIGS. 1 and 2 illustrate an audio/video component 10 and a media processor 40, respectively. Each of the audio/video component 10 and the media processor 40 combine audio and video processing but do not include a storage controller. In other words, at best the Gadre patent suggests combining digital signal processing functions such as audio/video processing on an integrated circuit but fails to

9 See page 25, lines 1-2 of the February 23, 2006 Office Action.
10 See column 1, lines 55-57 of the Gadre patent.
11 In particular, Gadre is directed to combining audio and video processing functions.

disclose combining a digital signal processor and a storage controller on a single processor. In particular, the Gadre patent discloses a plurality of digital signal processing cores 62 and 102 as shown in FIGS 3 and 4, respectively. None of the processing cores 62 and 102 are storage controllers. As such, the Gadre patent appears to be absent of any teaching or suggestion of a single programmable processor that is a single integrated circuit and is programmed as **a digital signal processor and a storage controller**.

Instead, FIGS. 3 and 4 of Gadre disclose separate memory controllers 70 and 122, respectively. Applicant notes that the memory controllers 70 and 122 are not storage controllers to retrieve encoded media data from a storage device as claim 5 recites. As best understood by Applicant, the memory controllers 70 and 122 correspond to memory subsystems "to support [the] processing cores."[12] In other words, the memory subsystems provide "a portion of the working memory utilized by the processor in converting a digital data stream into audio and/or video information"[13] and **do not store compressed media data**. The Gadre patent fails to disclose a storage controller **to retrieve compressed media data from a storage device** as claim 5 recites.

Consequently, even if there were some motivation to combine the teachings of the Birrell and Gadre patents, **neither of these patents discloses a programmable processor that is programmed as both a storage controller to retrieve compressed media data and a digital signal processor to decompress the compressed media data, wherein the processor comprises a single integrated circuit**. The combination of the Gadre patent still fails to compensate for the admitted deficiencies of the Birrell patent.

In view of the foregoing, Applicant respectfully submits that the Examiner has failed to clearly and particularly support his alleged motivation to combine these references using actual evidence as required and instead relies on impermissible hindsight. Applicant respectfully notes that the Birrell patent is directed to copying data from a storage device to a random access memory (RAM 108). An audio player then

12 See column 6, lines 2-4 of the Gadre patent.
13 See column 4, lines 23-27 of the Gadre patent.

plays the data directly from the RAM.[14] As best understood by Applicant, the Birrell patent explicitly discloses a separate CPU 102 and a disk controller 106 and is completely absent of any teaching or suggestion to provide a programmable processor comprising a single integrated circuit that is programmed as both a digital signal processor and a disk controller. A reference must be considered for all that it teaches including disclosures that point towards the invention and disclosures that teach away from the invention. ***In re Dow***, 5 USPQ.2d 1529 (Fed. Cir. 1988). Here, the Birrell patent discloses a separate CPU 102 and disk controller 106 and teaches away from a programmable processor comprising a single integrated circuit programmed as both a storage controller and a digital signal processor. The Birrell patent appears to be absent of any suggestion to combine a storage controller (e.g. the disk controller 106) with a digital signal processor (e.g. the CPU 102) on a single integrated circuit and instead is directed to transferring data from the disk controller 106 to the RAM 108.

Similarly, the Gadre patent appears to be absent of any suggestion to combine a storage controller and a digital signal processor on a single processor comprising a single integrated circuit. The Gadre patent is directed to combining **digital signal processor functions** on the same integrated circuit device, but is particularly absent of any suggestion to combine **a storage controller with a digital signal processor**. One skilled in the art presented with the Birrell patent, which is directed to copying data from a storage device to a RAM 108 and discloses a separate disk controller 106, would have no motivation to look to the teachings of the Gadre patent, which is directed to combining digital signal processor functions.

Since the Examiner has offered no proper support or motivation for combining the references, it is respectfully submitted that the rejection based on obviousness is clearly and unequivocally founded upon "knowledge gleaned only from applicant's disclosure." **M.P.E.P. § 2145.** Consequently, it is respectfully submitted that the rejection **entails impermissible hindsight** and is, therefore, improper.

Applicant respectfully submits that claim 5 should be allowable for at least the above reasons. Claims 14, 32, and 41 should be allowable for at least similar reasons.

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14 See Abstract and col. 3, lines 40-58 of the Birrell patent.

5. Dependent Claim 8, 17, 25, 35, and 44

Further with respect to claim 8, Applicant respectfully submits that at least the combination of the Birrell and Yanagihara is improper. In particular, there is a lack of motivation to combine the references and the combination relies on impermissible hindsight. Even if the combination is proper, Applicant respectfully submits that the combination of Birrell and Yanagihara fails to show, teach, or suggest **determining a compression format of media data stored in memory, retrieving the process for decompressing compressed data from a storage device in accordance with the determined compression format, and decompressing the media data in accordance with the retrieved process.**

Initially, Applicant respectfully submits that the alleged combination fails to show, teach, or suggest the limitations of claim 8. As admitted by the Examiner, the Birrell patent fails to "explicitly disclose wherein said digital signal processor determines a compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format."[15]

The Examiner improperly relies on the Yanagihara patent to disclose these limitations. The Examiner notes that the Yanagihara patent discloses a digital signal processor that "determines a compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format."[16] In particular, the Examiner states that "the general controller determines the compression such as one of MPEG audio, Dolby AC-3, and Linear PCM and sets a decoder in accordance with the data received."[17] Applicant respectfully submits that these features are not analogous to the limitations that claim 8 recites.

Applicant respectfully notes that the Yanagihara patent states that "[t]he general controller section 21 may set a decoder, or a parameter(s) pertaining thereto, in the presentation engine 12 in accordance with the received control data." (Col. 2, lines 10-13). The general control data is received from a DVD 101. (Col. 2, lines 5-6). As best understood by Applicant, the Yanagihara patent discloses that the control data is received along with the encoded media data from the same source (i.e. the DVD 101).

15 See page 28, lines 12-14 of the February 23, 2006 Office Action.
16 See page 28, lines 15-18 of the February 23, 2006 Office Action.
17 See page 28, lines 18-20 of the February 23, 2006 Office Action.

The general controller section 21 sets decoder parameters based on the general control data. Consequently, Yanagihara discloses, at best, receiving encoded media data and general control data, and decoding the encoded media data in accordance with the general control data. Yanagihara is completely absent of any teaching or suggestion of **retrieving the process for decompressing compressed data from a storage device in accordance with the determined compression format, and decompressing the media data in accordance with the retrieved process**.

In contrast, Applicant's claim 8 requires that the media player/recorder i) determines a compression format of the media data, ii) retrieves from a storage device in accordance with the determined compression format, and iii) decompresses the media data in accordance with the retrieved process. In other words, Applicant's claim 8 is directed to determining the compression format and decompressing the media data based on **a corresponding process that is stored on the storage device**. The process corresponds to the determined compression format. The Yanagihara patent is absent of any teaching or suggestion of this limitation. Instead, the Yanagihara patent discloses a general controller that sets decoder parameters based on general control data received from a DVD. The general controller **does not retrieve from a storage device in accordance with a determined compression format**.

In view of the foregoing, Applicant respectfully submits that the Examiner has failed to clearly and particularly support his alleged motivation to combine these references using actual evidence as required and instead relies on impermissible hindsight.

Applicant respectfully notes that the Birrell patent is directed to copying data from a storage device to a random access memory (RAM 108) in a **portable audio player** to **minimize power consumption**. The portable audio player then plays the data directly from the RAM.[18] In contrast, the Yanagihara patent is directed to a system that includes **a DVD player and a number of presentation devices such as a television receiver or a video cassette recorder** and that reduces the amount of processing of the DVD player (see Abstract). One skilled in the art presented with the Birrell patent, which is directed to a **portable audio player**, would have no motivation to look to the teachings

18 See Abstract and col. 3, lines 40-58 of the Birrell patent.

of the Yanagihara patent, which is directed to **non-portable DVD player** connected to various presentation devices.

Since the Examiner has offered no proper support or motivation for combining the references, it is respectfully submitted that the rejection based on obviousness is clearly and unequivocally founded upon "knowledge gleaned only from applicant's disclosure." **M.P.E.P. § 2145.** Consequently, it is respectfully submitted that the rejection **entails impermissible hindsight** and is, therefore, improper.

Applicant respectfully submits that claim 8 should be allowable for at least the above reasons. Claims 17, 25, 35, and 44 should be allowable for at least similar reasons.

6. Distinctions regarding independent Claims 20 and 47

Applicant respectfully submits that the combination of the Birrell and Gadre patents is improper. Even if the combination is proper, the combination nonetheless fails to show, teach, or suggest all of the limitations of Applicant's claims 20 and 47. In particular, the combination fails to show, teach, or suggest **a programmable processor that is programmed as a digital signal processor and a storage controller**.

With respect to claim 20, the Examiner admits that the Birrell patent fails to disclose that the storage controller "is part of the programmable processor." As best understood by Applicant, the Birrell patent explicitly discloses a disk controller 106 that is distinct and separate from the processor 102. The Birrell patent appears to be absent of any teaching or suggestion of a programmable processor that is programmed as **both the storage controller and the digital signal processor**.

The Examiner improperly relies on the Gadre patent to suggest a processor that is programmed as both the storage controller and the digital signal processor. In particular, the Gadre patent states that "a significant need has developed for a manner of integrating the functionality of multiple DSP chips onto the same integrated circuit device."[19] As best understood by the Applicant, the Gadre patent is directed to

19 See column 1, lines 55-57 of the Gadre patent.

integrating the functionality of **digital signal processing** (DSP) chips[20] and is absent of any teaching or suggestion of combining the functionality of a **storage controller** with the DSP on the same integrated circuit device.

In the Gadre patent, FIGS. 1 and 2 illustrate an audio/video component 10 and a media processor 40, respectively. Each of the audio/video component 10 and the media processor 40 combine audio and video processing but do not include a storage controller. In other words, at best the Gadre patent suggests combining digital signal processing functions such as audio/video processing on an integrated circuit but fails to disclose combining a digital signal processor and a storage controller on a single processor. In particular, the Gadre patent discloses a plurality of digital signal processing cores 62 and 102 as shown in FIGS 3 and 4, respectively. None of the processing cores 62 and 102 are storage controllers. As such, the Gadre patent appears to be absent of any teaching or suggestion of a single programmable processor that is a single integrated circuit and is programmed as **a digital signal processor and a storage controller**.

Instead, FIGS. 3 and 4 of Gadre disclose separate memory controllers 70 and 122, respectively. Applicant notes that the memory controllers 70 and 122 are not storage controllers to retrieve encoded media data from a storage device as claim 5 recites. As best understood by Applicant, the memory controllers 70 and 122 correspond to memory subsystems "to support [the] processing cores."[21] In other words, the memory subsystems provide "a portion of the working memory utilized by the processor in converting a digital data stream into audio and/or video information"[22] and **do not store compressed media data**. The Gadre patent fails to disclose a storage controller **to read compressed media data from a storage device** as claim 20 requires.

Consequently, even if there were some motivation to combine the teachings of the Birrell and Gadre patents, **neither of these patents discloses a programmable processor that is programmed as both a digital signal processor to decompress compressed media data and a storage controller**. The combination of the Gadre

20 In particular, Gadre is directed to combining audio and video processing functions.
21 See column 6, lines 2-4 of the Gadre patent.
22 See column 4, lines 23-27 of the Gadre patent.

patent still fails to compensate for the admitted deficiencies of the Birrell patent.

In view of the foregoing, Applicant respectfully submits that the Examiner has failed to clearly and particularly support his alleged motivation to combine these references using actual evidence as required and instead relies on impermissible hindsight. Applicant respectfully notes that the Birrell patent is directed to copying data from a storage device to a random access memory (RAM 108). An audio player then plays the data directly from the RAM.[23] As best understood by Applicant, the Birrell patent explicitly discloses a separate CPU 102 and a disk controller 106 and is completely absent of any teaching or suggestion to provide a programmable processor comprising a single integrated circuit that is programmed as both a digital signal processor and a disk controller. A reference must be considered for all that it teaches including disclosures that point towards the invention and disclosures that teach away from the invention. ***In re Dow***, 5 USPQ.2d 1529 (Fed. Cir. 1988). Here, the Birrell patent discloses a separate CPU 102 and disk controller 106 and teaches away from a programmable processor comprising a single integrated circuit programmed as both a storage controller and a digital signal processor. The Birrell patent appears to be absent of any suggestion to combine a storage controller (e.g. the disk controller 106) with a digital signal processor (e.g. the CPU 102) on a single integrated circuit and instead is directed to transferring data from the disk controller 106 to the RAM 108.

Similarly, the Gadre patent appears to be absent of any suggestion to combine a storage controller and a digital signal processor on a single processor comprising a single integrated circuit. The Gadre patent is directed to combining **digital signal processor functions** on the same integrated circuit device, but is particularly absent of any suggestion to combine **a storage controller with a digital signal processor**. One skilled in the art presented with the Birrell patent, which is directed to copying data from a storage device to a RAM 108 and discloses a separate disk controller 106, would have no motivation to look to the teachings of the Gadre patent, which is directed to combining digital signal processor functions.

Since the Examiner has offered no proper support or motivation for combining the references, it is respectfully submitted that the rejection based on obviousness is

23 See Abstract and col. 3, lines 40-58 of the Birrell patent.

clearly and unequivocally founded upon "knowledge gleaned only from applicant's disclosure." **M.P.E.P. § 2145.** Consequently, it is respectfully submitted that the rejection **entails impermissible hindsight** and is, therefore, improper.

Applicant respectfully submits that claim 20 should be allowable for at least the above reasons. Claim 47 should be allowable for at least similar reasons.

7. Dependent Claims 23 and 48

With regard to claims 23 and 48, these claims are allowable for at least the reasons previously presented with regard to claims 22 and 47, respectively. Further, claims 23 and 48 should be allowable for at least the reasons previously presented with regard to claim 8. Accordingly, it is respectfully requested that the rejection of claims 23 and 48 be overturned.

8. Dependent Claims 103 and 112

With regard to claims 103 and 112, these claims are allowable for at least the reasons previously presented with regard to claims 22 and 47, respectively. Accordingly, it is respectfully requested that the rejection of claims 103 and 112 be overturned.

9. Distinctions regarding independent Claims 169-172

Applicant respectfully submits that the Birrell patent fails to show, teach, or suggest all of the limitations of Applicant's claims 169-172. In particular, the Birrell patent fails to show, teach, or suggest **wherein when a user selects a particular one of said plurality of selections, said processor retrieves a remaining portion of the particular one of said plurality of selections and said output device outputs the portion and remaining portion of the particular one of said plurality of selections.**

In the Birrell patent, FIG. 1 illustrates a central processing unit (CPU, i.e. a processor) 102, a memory (RAM) 108, and a storage device (disk 104). Applicant respectfully notes that the Birrell patent is directed to copying data from a storage

device to a random access memory (RAM 108). An audio player then plays the data directly from the RAM.[24] For example, the CPU 102 decompresses "a portion of the audio data stored in the RAM 108."[25]

With respect to claim 169, the Examiner alleges that the Birrell patent discloses "wherein when a user selects a particular one of said plurality of selections, said processor retrieves a remaining portion of the particular one of said plurality of selections and said output device outputs the portion and remaining portion of the particular one of said plurality of selections" at column 6, lines 5-28.[26] In particular, the Examiner alleges that "the portions present in the RAM are read out to the audio out jack." As best understood by Applicant, the Birrell patent explicitly discloses retrieving the remaining portion when an amount of data in RAM (i.e. memory) **falls below a predetermined threshold**, instead of retrieving the remaining portion **when a user selects** a particular one of said selections..

For example, "[p]lay control logic monitors (222) the amount of data that remains in RAM (or equivalently, it monitors the amount of playtime associated with the unplayed data in RAM). To ensure that there is no undesirable break in the audio output, **when the playtime associated with the data stored in RAM falls below a predetermined threshold (sometimes called the low water mark), the play control logic determines whether, and how much, additional data will be required by RAM 108, and initiates the transfer of additional data** from disk 104 to RAM 108 (224)."[27] (Emphasis added). Applicant respectfully submits that transferring additional data **when playtime associated data stored in RAM falls below a threshold** is not analogous to transferring remaining data **when a user selects** as claim 169 recites.

For anticipation to be present under 35 U.S.C §102(b), there must be no difference between the claimed invention and the reference disclosure as viewed by one skilled in the field of the invention. *Scripps Clinic & Res. Found. V. Genentech, Inc.*, 18 USPQ.2d 1001 (Fed. Cir. 1991). All of the limitations of the claim must be inherent or expressly disclosed and must be arranged as in the claim. *Constant v.*

24 See Abstract and col. 3, lines 40-58 of the Birrell patent.
25 See column 4, lines 30-32 of the Birrell Patent.
26 See page 22, lines 1-7 of the February 23, 2006 Office Action.
27 See column 6, lines 5-14 of the Birrell patent.

Advanced Micro-Devices, Inc., 7 USPQ.2d 1057 (Fed. Cir. 1988). Here, the Birrell patent fails to disclose the limitation of retrieving a remaining portion of a particular one of a plurality of selections **when a user selects** a particular one of said plurality of selections as claim 169 recites.

Applicant respectfully submits that claim 169 should be allowable for at least the above reasons. Claims 170-172 should be allowable for at least similar reasons.

VIII. CONCLUSION

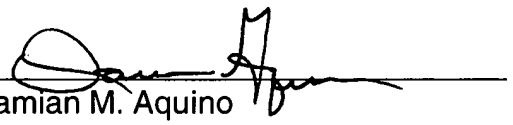
Appellant respectfully request the Honorable Board of Patent Appeals and Interferences to reverse the Examiner's rejection of each of pending claims 1-23, 25, 26, 28-48, 97-112, and 169-172. Appellant respectfully submits that the prior art does not teach or suggest one or more limitations of the claims as discussed above, and the Examiner has not provided proper evidence of motivation necessary for combining the teachings of the prior art references. Accordingly, for at least the aforementioned reasons, Appellant respectfully requests the Honorable members of the Board of Patent Appeals and Interferences to reverse the outstanding rejections in connection with the present application and permit each of claims 1-23, 25, 26, 28-48, 97-112, and 169-172 to be passed to allowance in connection with the present application.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Michael D. Wiggins, Reg. No. 34,754 at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By: 
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IX. APPENDIX A

CLAIMS APPENDED

This is a complete and current listing of the claims.

1. (Previously Presented) A media player/recorder comprising:

a storage device to store compressed media data;

a programmable processor which is programmed as a storage controller to retrieve the compressed media data stored in said storage device;

a memory to store the compressed media data retrieved by said programmable processor,

wherein said programmable processor is also programmed as a digital signal processor to decompress the compressed media data stored in said memory; and

an output circuit to output the decompressed media data from said programmable processor.

2. (Original) A media player/recorder according to claim 1, wherein said memory comprises a dynamic access memory.

3. (Original) A media player according to claim 1, further comprising an interface responsive to said processor to communicate with an external device.

4. (Previously Presented) A media player according to claim 1, wherein said digital signal processor is configured to control said storage device and to decompress the media data stored in said memory.

5. (Previously Presented) A media player according to claim 1, wherein said programmable processor comprises a single integrated circuit comprising:

said digital signal processor to control said storage device and to decompress the compressed media data stored in said memory;

said storage controller responsive to said digital signal processor; and

a read channel to read data from said storage device and responsive to said storage controller.

6. (Original) A media player according to claim 4, wherein said digital signal processor comprises a decoder to decompress the media data stored in said memory.

7. (Original) A media player according to claim 6, wherein said storage device stores a process for decompressing compressed data for a selected compression format.

8. (Original) A media player according to claim 7, wherein said digital signal processor determines a compression format of the media data stored in said memory, wherein the process for decompressing compressed data is retrieved from said storage device in accordance with the determined compression format, and wherein said decoder decompresses the media data in accordance with the retrieved process.

9. (Original) A media player according to claim 3, wherein the media data is transferred from the external device through said interface for storage on said storage device.

10. (Original) A media player according to claim 4, further comprising an input circuit to receive media data, wherein said digital signal processor comprises an encoder to compress the received media data, and wherein the compress media data received by said input circuit is stored on said storage device.

11. (Previously Presented) A media player/recorder comprising:

a storage device to store compressed media data;

a programmable processor which is programmed as a storage controller to retrieve the compressed media data stored in said storage device;

wherein said programmable processor decompresses the compressed media data stored in said storage device; and

an output circuit to output the decompressed media data from said programmable processor,

wherein said programmable processor comprises a digital signal processor, and uses the same circuit to control said storage device and to decompress the compressed media data stored in said memory.

12. (Original) A media player/recorder according to claim 11, wherein said memory comprises a dynamic access memory.

13. (Original) A media player according to claim 11, further comprising an interface responsive to said processor to communicate with an external device.

14. (Previously Presented) A media player according to claim 11, wherein said programmable processor comprises a single integrated circuit comprising:

said digital signal processor to control said storage device and to decompress the compressed media data stored in said memory;

said storage controller responsive to said digital signal processor; and

a read channel to read data from said storage device and responsive to said storage controller.

15. (Original) A media player according to claim 11, wherein said digital signal processor comprises a decoder to decompress the media data stored in said memory.

16. (Original) A media player according to claim 15, wherein said storage device stores a process for decompressing compressed data for a selected compression format.

17. (Original) A media player according to claim 16, wherein said digital signal processor determines a compression format of the media data stored in said

memory, wherein the process for decompressing compressed data is retrieved from said storage device in accordance with the determined compression format, and wherein said decoder decompresses the media data in accordance with the retrieved process.

18. (Original) A media player according to claim 13, wherein the media data is transferred from the external device through said interface for storage on said storage device.

19. (Original) A media player according to claim 11, further comprising an input circuit to receive media data, wherein said digital signal processor comprises an encoder to compress the received media data, and wherein the compress media data received by said input circuit is stored on said storage device.

20. (Previously Presented) An integrated circuit to control a media player/recorder having a storage device having stored thereon compressed media data, a memory and an output circuit, said integrated circuit comprising:

a programmable processor that is programmed as:

a digital signal processor to control the storage device;

a storage controller responsive to said digitai signal processor; and

a read channel responsive to said storage controller to read the compressed media data from the storage device,

wherein said digital signal processor transfers the compressed media data read by said read channel to the memory,

wherein said digital signal processor comprises a decoder to decompress the compressed media data stored in said memory; and

wherein said digital signal processor converts the media data decompressed by said decoder to an analog signal.

21. (Original) A media player according to claim 20,

wherein the storage device stores a process for decompressing compressed data for a selected compression format,

wherein said digital signal processor determines a compression format of the media data stored in the memory,

wherein the process for decompressing compressed data is retrieved from the storage device in accordance with the determined compression format, and

wherein said decoder decompresses the media data in accordance with the retrieved process.

22. (Previously Presented) A method of playing and recording media data from a media player/recorder, said method comprising the steps of:

a. storing compressed media data on a storage device;

b. using a circuit to retrieve the compressed media data stored on the storage device;

c. transferring the compressed media data retrieved in step b to a memory;

d. using the same circuit used for said retrieves to decompress the compressed media data transferred in step c; and

e. outputting the decompressed media data.

23. (Original) A method of claim 22, wherein step a comprises the step of communication with an external device.

24. (Canceled) A method of claim 22, further comprising the step of supplying energy to the storage device only during step a or step b.

25. (Original) A method of claim 22, further comprising the steps of:

f. storing a process for decompressing compressed data for a selected compression format;

g. determining a compression format of the media data transferred in step c;

h. retrieving the selected compression format stored in step f, and

i. decompressing the compressed media data transferred in step c in accordance with the retrieved selected compression format in step h.

26. (Original) A method of claim 22 further comprising the steps of inputting a signal;

compressing the signal input in step j; and

storing the compressed signal from step k on the storage device.

27. (Canceled) A media player according to claim 1, wherein energy is supplied to said storage device only when said processor retrieves the media data from said storage device.

28. (Previously Presented) A media player/recorder comprising:

storage means for storing compressed media data;

programmable processing means programmed as a storage controller means for retrieving the compressed media data stored in said storage means;

memory means for storing the compressed media data retrieved by said programmable processing means,

wherein said programmable processing means is also programmed as a digital signal processing means for decompressing the compressed media data stored in said memory means; and

output means for outputting the decompressed media data from said programmable processing means.

29. (Original) A media player/recorder according to claim 28, wherein said memory means comprises a dynamic access memory means.

30. (Original) A media player according to claim 28, further comprising interface means responsive to said processing means for communicating with an external device.

31. (Previously Presented) A media player according to claim 28, wherein said digital signal processing means is configured for controlling said storage means and for decompressing the compressed media data stored in said memory means.

32. (Previously Presented) A media player according to claim 28, wherein said programmable processing means comprises a single integrated circuit comprising:

said digital signal processing means for controlling said storage means and for decompressing the compressed media data stored in said memory means;

said storage controller means responsive to said digital signal processing means for controlling said storage means; and

read channel means for reading data from said storage means and responsive to said storage controller means.

33. (Original) A media player according to claim 31, wherein said digital signal processing means comprises a decoding means for decompressing the media data stored in said memory means.

34. (Original) A media player according to claim 33, wherein said storage means stores a process for decompressing compressed data for a selected compression format.

35. (Original) A media player according to claim 34, wherein said digital signal processing means determines a compression format of the media data stored in said memory means, wherein the process for decompressing compressed data is retrieved from said storage means in accordance with the determined compression format, and wherein said decoding means decompresses the media data in accordance with the retrieved process.

36. (Original) A media player according to claim 30, wherein the media data is transferred from the external device through said interface means for storage on said storage means.

37. (Original) A media player according to claim 31, further comprising input means for receiving media data, wherein said digital signal processing means comprises encoding means for compressing the received media data, and wherein the compress media data received by said input means is stored on said storage means.

38. (Previously Presented) A media player/recorder comprising:

storage means for storing compressed media data;

programmable processing means that is programmed as a storage controller means for retrieving the compressed media data stored in said storage means;

wherein said programmable processing means decompresses the compressed media data stored in said storage means; and

output means for outputting the decompressed media data from said programmable processing means,

wherein said programmable processing means comprises a digital signal processing means and uses the same circuit for controlling said storage means and for decompressing the compressed media data stored in said memory means.

39. (Original) A media player/recorder according to claim 38, wherein said memory means comprises a dynamic access memory means.

40. (Original) A media player according to claim 38, further comprising an interface means responsive to said processing means for communicating with an external device.

41. (Previously Presented) A media player according to claim 38, wherein said programmable processing means comprises a single integrated circuit comprising:

said digital signal processing means for controlling said storage means and for decompressing the compressed media data stored in said memory means;

said storage controller means responsive to said digital signal processing means for controlling said storage device; and

read channel means for reading data from said storage means and responsive to said storage controller means.

42. (Original) A media player according to claim 38, wherein said digital signal processing means comprises decoding means for decompressing the media data stored in said memory means.

43. (Original) A media player according to claim 42, wherein said storage means stores a process for decompressing compressed data for a selected compression format.

44. (Original) A media player according to claim 43, wherein said digital signal processing means determines a compression format of the media data stored in said memory means, wherein the process for decompressing compressed data is retrieved from said storage means in accordance with the determined compression format, and wherein said decoding means decompresses the media data in accordance with the retrieved process.

45. (Original) A media player according to claim 40, wherein the media data is transferred from the external device through said interface means for storage on said storage means.

46. (Original) A media player according to claim 38, further comprising input means for receiving media data, wherein said digital signal processing means comprises encoding means for compressing the received media data, and wherein the compress media data received by said input means is stored on said storage means.

47. (Previously Presented) An integrated circuit for controlling a media player/recorder having storage means having stored thereon compressed media data, memory means and output means, said integrated circuit comprising:

a programmable processor means that is programmed as:

digital signal processing means for controlling the storage means;

storage controller means responsive to said digital signal processing means;

and

read channel means responsive to said storage controller means for reading the compressed media data from the storage means,

wherein said digital signal processing means transfers the compressed media data read by said read channel means to the memory means,

wherein said digital signal processing means comprises a decoding means for decompressing the compressed media data stored in said memory means; and

wherein said digital signal processing means converts the media data decompressed by said decoding means to an analog signal.

48. (Original) A media player according to claim 47,

wherein the storage means stores a process for decompressing compressed data for a selected compression format,

wherein said digital signal processing means determines a compression format of the media data stored in the memory means, wherein the process for decompressing compressed data is retrieved from the storage means in accordance with the determined compression format, and wherein said decoding means decompresses the media data in accordance with the retrieved process.

49-96. (Canceled)

97. (Original) A media player/recorder according to claim 1, wherein said storage device comprises a hard disk.

98. (Original) A media player/recorder according to claim 1, wherein said storage device is selected from the group consisting of optical disk, magnetic disk, CD ROM, CDR, and CDRW.

99. (Original) A media player/recorder according to claim 5, wherein said storage device comprises a hard disk, and

wherein said storage controller comprises a hard disk controller.

100. (Original) A media player/recorder according to claim 11, wherein said storage device comprises a hard disk.

101. (Original) A media player/recorder according to claim 11, wherein said storage device is selected from the group consisting of optical disk, magnetic disk, CD ROM, CDR, and CDRW.

102. (Original) A media player/recorder according to claim 14, wherein said storage device comprises a hard disk, and

wherein said storage controller comprises a hard disk controller.

103. (Original) An integrated circuit according to claim 20, wherein the storage device comprises a hard disk, and

wherein said storage controller comprises a hard disk controller.

104. (Original) A method according to claim 22, wherein the storage device comprises a hard disk.

105. (Original) A method according to claim 22, wherein the storage device is selected from the group consisting of optical disk, magnetic disk, CD ROM, CDR, and CDRW.

106. (Original) A media player/recorder according to claim 28, wherein said storage means comprises hard disk means.

107. (Original) A media player/recorder according to claim 28, wherein said storage means is selected from the group consisting of optical storage means, magnetic storage means, CD ROM, CDR, and CDRW.

108. (Original) A media player/recorder according to claim 32, wherein said storage means comprises hard disk means, and

wherein said storage controller means comprises hard disk controller means.

109. (Original) A media player/recorder according to claim 38, wherein said storage means comprises hard disk means.

110. (Original) A media player/recorder according to claim 38, wherein said storage means is selected from the group consisting of optical storage means, magnetic storage means, CD ROM, CDR, and CDRW.

111. (Original) A media player/recorder according to claim 41, wherein said storage means comprises hard disk means, and wherein said storage controller means comprises hard disk controller means.

112. (Original) An integrated circuit according to claim 47, wherein the storage means comprises hard disk means, and wherein said storage controller means comprises hard disk controller means.

113-168. (Cancelled)

169. (Original) A media player/recorder comprising:

a storage device to store media data, the media data comprising a plurality of selections;

a memory;

a processor to transfer first portions of at least one of the plurality of selections of the media data from said storage device to said memory;

an output device,

wherein said output device outputs the first portions of the at least one of the plurality of sections of the media data from the memory,

wherein when a user selects a particular one of said plurality of selections, said processor retrieves a remaining portion of the particular one of said plurality of selections and said output device outputs the portion and remaining portion the particular one of said plurality of selections.

170. (Original) A media player/recorder comprising:

storage means for storing media data, the media data comprising a plurality of selections;

memory means for storing data;

processing means for transferring first portions of at least one of the plurality of selections of the media data from said storage means to said memory means;

an output means for outputting the first portions of the at least one of the plurality of sections of the media data from said memory means,

wherein when a user selects a particular one of said plurality of selections, said processing means retrieves a remaining portion of the particular one of said plurality of selections and said output means outputs the portion and remaining portion the particular one of said plurality of selections.

171. (Original) A method of playing and recording media data from a media player/recorder, said method comprising the steps of:

(a) storing media data, the media data comprising a plurality of selections;

(b) transferring first portions of at least one of the plurality of selections of the media data from step (a) to a means;

(c) outputting the first portions of the at least one of the plurality of sections of the media data from the memory,

wherein when a user selects a particular one of said plurality of selections, then retrieving a remaining portion of the particular one of said plurality of selections and then outputting the portion and remaining portion the particular one of said plurality of selections.

172. (Original) A computer program for playing and recording media data from a media player/recorder, said method comprising the steps of:

(a) storing media data, the media data comprising a plurality of selections;

(b) transferring first portions of at least one of the plurality of selections of the media data from step (a) to a means;

(c) outputting the first portions of the at least one of the plurality of sections of the media data from the memory,

wherein when a user selects a particular one of said plurality of selections, then retrieving a remaining portion of the particular one of said plurality of selections and then outputting the portion and remaining portion the particular one of said plurality of selections.

X. APPENDIX B

EVIDENCE APPENDED

A copy of the Office Action mailed February 23, 2006 is attached.

XI. APPENDIX C

RELATED PROCEEDINGS APPENDED

An appeal brief was previously filed with respect to the present application. In response to the appeal brief, the Examiner issued the Office Action mailed September 19, 2005.

An appeal brief was filed with respect to U.S. Patent Application No. 10/184,505. In response to the appeal brief, the Examiner issued an Office Action mailed January 11, 2006. A copy of the Office Action is attached.

An appeal brief was filed with respect to U.S. Patent Application No. 10/184,302. In response to the appeal brief, the Examiner issued an Office Action mailed February 10, 2006. A copy of the Office Action is attached.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/659,693	09/11/2000	Sehat Sutardja	MP0062	5047

26703 7590 02/23/2006

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ART UNIT	PAPER NUMBER
2644	

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

OIPE
AUG 18 2006
PATENT & TRADEMARK OFFICE

Office Action Summary

Application No.	Applicant(s)	
09/659,693	SUTARDJA, SEHAT	
Examiner	**Art Unit**	
Andrew C. Flanders	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23,25,26,28-48,97-112 and 169-172* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23,25,26,28-48,97-112 and 169-172* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 December 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

OIPE IAP80 AUG 18 2006 PATENT & TRADEMARK OFFICE

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 12 December 2005 regarding the claims have been fully considered but they are not persuasive.

Applicant alleges:

> "It is respectfully submitted that nowhere does Birrell teach the feature of a programmable processor that is programmed as both a storage controller to retrieve the compressed media data stored in a storage device and a digital signal processor to decompress the compressed media data stored in a memory. In particular, nowhere does Birrell teach that any of the "control programs" executed by the data processor 102 includes a storage controller to retrieve the compressed media data stored in a storage device, as recited in, for example, independent claim 1 of the present invention. For at least these reasons, it is respectfully submitted that Birrell does not anticipate the subject matter of independent claim 1."

Examiner respectfully disagrees. Applicant first alleges that the CPU (i.e. programmable processor) taught by Birrell is not programmed as a storage controller. As shown in the previous rejection and current rejection, the play produce control program, executed by the processor, transfers data from the disk to the RAM. By doing so, it controls the hard disk and thus is programmed as a storage controller to retrieve the compressed media data.

Secondly, Applicant alleges that the CPU taught by Birrell is not programmed as a digital signal processor to decompress the compressed media data. As shown in the previous rejection and current rejection, Birrell discloses that the processor includes a decompression procedure for decompressing compressed audio files. These audio files

are stored in a digital format and the processor operates on them digitally to perform the decompression. As such, it is programmed as a digital signal processor.

Applicant further alleges:

> "It is respectfully submitted that the Patent Office has failed to apply the correct test for utility required under 35 U.S.C. 101, i.e., the practical application test set forth in State Street Bank. It is respectfully submitted that claim 172 is directed to a computer program for playing and recording media data from a media player/recorder that produces a useful, concrete and tangible result by "c) outputting the first portions of the at least one of the plurality of sections of the media data from the memory, wherein when a user selects a particular one of said plurality of selections, then retrieving a remaining portion of the particular one of said plurality of selections and then outputting a the portion and remaining portion the particular one of said plurality of selections"

Examiner respectfully disagrees. As a first note the rejection stated previously was made [19 September 2005] using the old guidelines. The new guidelines were issued on 26 October 2005. In the present test under the new guidelines, the claim still fails to claim statutory subject matter.

Applicant acknowledges that the claim is directed toward a computer program. Thus, Applicant is aware of the fact that the claim is directed to an abstract idea. Using the test, after determination that an abstract idea is claimed, it is necessary to determine whether the claim is for a practical application. The two ways of showing practical Application are identified by

1.) "The claimed invention 'transforms' an article of physical object into a different state or thing" or;

2.) "The claimed invention otherwise produces a useful, concrete and tangible result.

Element 1.) does not apply as there is no transformation. As to element 2.), Applicant points to pages 19 – 22 of the interim guidelines to show that

"c) outputting the first portions of the at least one of the plurality of sections of the media data from the memory, wherein when a user selects a particular one of said plurality of selections, then retrieving a remaining portion of the particular one of said plurality of selections and then outputting a the portion and remaining portion the particular one of said plurality of selections"

disclose a useful, concrete and tangible result.

In the instant case, there is no practical application from the claimed output. Examiner points to page 21 of the interim guidelines which states:

"Likewise, a claim that can be read so broadly as to include statutory and nonstatutory subject matter must be amended to limit the claim to a practical application. In other words, if the specification discloses a practical application of a § 101 judicial exception, but the claim is broader than the disclosure such that it does not require a practical application, then the claim must be rejected."

In the instant case, the term output can be read either broadly as merely just an output with no physical real world application, or as it appears Applicant would like it to be read which Examiner believes from the specification page 6 in which it states;

"If the analog signal contains audio data, output circuit 216 is connected to a speaker, headphone and the like for playback, and if the analog signal contains video data, output circuit 216 is connected to a display device for playback."

However, since these limitations are not present in the claims, the output of the program as claimed does not provide a practical application as it is lacking in the means necessary.

Applicant Alleges:

> "With respect to the rejection of claims 169-172, it is respectfully submitted that nowhere does Birrell teach the features of a processor to transfer first portions of at least one of the plurality of selections of the media data from said storage device to said memory; and an output device, wherein said output device outputs the first portions of the at least one of the plurality of sections of the media data from the memory, and wherein when a user selects a particular one of said plurality of selections, said processor retrieves a remaining portion of the particular one of said plurality of selections and said output device outputs the portion and remaining portion the particular one of said plurality of selections, as recited in, for example, independent claim 169 of the present application."

Applicant substantiates this allegation by stating:

> "Thus, according to Birrell, data is merely transferred from disk 104 to RAM 108 to replenish the RAM 108 when the amount of data in RAM 108 falls below the "low water mark." It is respectfully submitted that nowhere does Birrell teach the feature of the processor retrieving a remaining portion of the particular one of the plurality of selections and the output device outputs the portion and remaining portion of the particular one of said plurality of selections, when a user selects a particular one of

> said plurality of selections. Birrell merely teaches that the R.AM 108 is replenished when the amount of data in RAM 108 falls below a predetermined threshold. For at least these reasons, it is respectfully submitted that Birrell does not anticipate the subject matter of independent claim 169."

Examiner respectfully disagrees. Birrell does in fact teach these limitations. The initial transfer of data to break the "low water mark" is considered to be the first portion of at least one of the plurality of selections. Thus, if for example, the low water mark is set at 500 KB, the system will read data from the drive into RAM until the low water mark is broken. At this point one portion of the at least one selection is transferred. Therefore the processor transfers first portions (i.e. the initial amount to break the low water mark) of at least one of the plurality of selections of the media data from said storage device to said memory (i.e. play control logic, executed by the CPU, transfers the data from the storage device to the RAM).

As all of this is happening, the data that is decompressed in the RAM is played continuously; col. 5 lines 60 – 67). Thus these first portions are played back through the audio output jack shown in Fig. 1. This reads on the limitation of wherein said output device outputs the first portions of the at least one of the plurality of selections of the media data from memory (i.e. the initial amount of data used to break the low water mark is played continuously from the RAM).

After this, the play control logic (executed by the CPU) determines if the data in the RAM falls below the "low water mark", if it does, it retrieves more data (portions) in order to keep the system above the threshold. As a note, to initialize all of this, it is required that a user select a song to be played by adding it to a play list. Thus this

teaches wherein a user selects a particular one of said plurality of selections (i.e. adding one of the songs out of a plurality stored on the hard disk to be played) said processor retrieves a remaining portion of the particular one of said plurality of selections (i.e. the play control logic, executed by the CPU, monitors the threshold and retrieves data (portions) as is necessary to maintain continuous playback.

As the addition data (portions) is retrieved, the data is still being played back continuously through the audio output jack disclosed in Fig. 1. As such, this reads on the limitation of said output device outputs the portion and remaining portion and remaining portion the particular one of said plurality of selections.

All of the above is disclosed in the Power Conserving Play Logic section disclosed by Birrell.

Applicant statement that "Birrell merely teaches that the RAM 108 is replenished when the amount of data in RAM 108 falls below a predetermined threshold" is held to be true. However, as shown above, the amount of data is continuously monitored and data is transferred dependent upon this. The data is not transferred continuously but rather in portions (as is claimed by Applicant). As such the argument is not persuasive and the rejection stands.

Applicant further alleges:

> "Furthermore, as illustrated in Figure 3 of the present application, read channel 341 "encodes the write data under the control of DSP/MPU 343, and supplies the encoded write data to preamplifier 232." (present application, page 8, lines 18-20) Read channel 341 also "decodes the read data under the control of DSP/MPU 343, and generates read data." (present application, page 8, lines 28-29) In contrast to the feature of a

> read channel configured to read the compressed media data from the storage device, it is respectfully noted that Birrell merely teaches one or more internal buses 134 for interconnecting the elements illustrated in Figure 1 of Birrell."

Examiner respectfully disagrees with this allegation. As a first matter, Examiner reminds Applicant that limitations from the specification are not to be read into the claim limitations in particular that the read channel "encodes the write data under the control of DSP/MPU 343, and supplies the encoded write data to preamplifier 232." and "decodes the read data under the control of DSP/MPU 343, and generates read data."

Secondly, per MPEP 2111, "Claims are not to be read in a vacuum, and limitations therein are to be interpreted in light of the specification in giving their 'broadest reasonable interpretation'", "...words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification", "One must bear in mind that especially in nonchemical cases, the words in a claim are generally not limited in their meaning by what is shown or disclosed in the specification.", "It is only when the specification provides definitions for terms appearing in the claims that the specification can be used in interpreting claim language.", and finally, "Interpretation of descriptive statements in a patent's written description is a difficult task, as an inherent tension exists as to whether a statement is a clear lexographic definition or a description of a preferred embodiment."

It is respectfully submitted that Applicant has not explicitly defined the term "read channel" in the specification. Rather, the portion that Applicant points to in order to differentiate the claimed read channel from the Birrell reference is merely a description

of a preferred embodiment. Thus the limitation of a "read channel" must be given its broadest reasonable interpretation in light of the specification given its plain meaning. Applicants various figures show interconnections between components through a solid line. Examiner maintains the position that an electrical connection for sending data between components (i.e. a parallel, serial, or any other type of bus connecting computer components) as disclosed by Birrell is in fact a read channel in its broadest interpretations.

Applicant further alleges:

> "It is respectfully submitted that neither Birrell nor Gadre teach or suggest the feature of an integrated circuit to control a media player/recorder, in which the integrated circuit includes a programmable processor that is programmed as a digital signal processor, a storage controller, and a read channel, as recited in, for example, independent claim 20 of the present application." and;
>
> "As discussed previously, Birrell does not teach or suggest a programmable processor that is programmed as both a storage controller and a digital signal processor to decompress the compressed media data stored in a memory. Additionally, it is noted that the Patent Office acknowledges that Birrell "does not disclose these elements within the processor as a single integrated circuit." (Office Action, page 11)."

Applicant substantiates this argument by stating:

> "Thus, Gadre merely teaches the integration of DSP and DSP-related functions into an integrated device. Contrary to the assertions of the Patent Office, it is respectfully submitted that nowhere does Gadre teach or even suggest the feature of an integrated circuit comprising a programmable processor that is programmed as a digital signal processor to control a storage device, a storage controller responsive to the digital signal processor, and a read channel responsive to the storage controller to read the compressed media data from the storage device. Consequently, it is respectfully submitted that Gadre does not address the above-identified deficiencies of Birrell."

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the instant case, Applicant is arguing that the combination does not teach the limitations because 1.) Birrell does not disclose the various elements within the processor as a single integrated circuit, and 2.) Gadre teaches the integration of DSP functions into an integrated device, but nowhere does Gadre teach , or even suggest the feature of an integrated circuit comprising a programmable processor that is programmed as a digital signal processor to control a storage device, a storage controller responsive to the digital signal processor, and a read channel responsive to the storage controller to read the compressed media data from the storage device.

It is respectfully submitted that Applicant has not considered the combination of the references and is instead attacking the references alone. As shown in the rejection, Birrell discloses the various components, the CPU, DSP, storage controller, and read channel, but does not disclose them integrated into a single processor on an integrated circuit. Again, Gadre teaches implementing multiple DSP functions on an integrated circuit device. Thus applying the CPU, DSP, storage controller, and read channel into the single integrated circuit as taught by Birrell would read upon the claimed limitations. The components taught by Birrell all deal with the playback of digital audio. Gadre discloses that a number of DSP functions used in A/V components (including decoding)

> "Rather, according to M.P.E.P. 2142, "[t]o reach a proper determination under 35 U.S.C. 103, . . . impermissible hindsight must be avoided and the legal conclusion [of obviousness] must be reached on the basis of the facts gleaned from the prior art." Furthermore, according to M.P.E.P. j 2143.01, "[t]he mere fact that references can be modified does not render the resultant combination obvious unless the prior art also suggests the desirability of (such modification." [citing In re Mills, 916 F.2d 680, 16 U.S.P.Q. 2d 1430 (Fed. Cir. 1990)]. Since the Patent Office has offered no proper support or motivation for combining the references, it is respectfully submitted that the rejection based on obviousness is clearly and unequivocally founded upon "knowledge gleaned only from applicant's disclosure." [see M.P.E.P. 2145 Consequently, it is respectfully submitted that the rejection entails hindsight and is, therefore, improper."

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Examiner respectfully submits that because Gadre explicitly discloses that the invention is concerned with reducing size and power requirements by reducing the number of components through integration into a single chip, there is sufficient evidence to implement Birrell's components in this manner without using hindsight.

Applicant further alleges:

> "It is respectfully submitted that Yanigihara does not teach or even suggest the feature of a programmable processor that is programmed as both a storage controller to retrieve the compressed media data stored in the storage device, and a digital signal processor to decompress the compressed media data stored in memory. Contrary to the assertions of the Patent Office, nowhere does Yanighara teach or suggest the feature that the digital signal processor determines a compression format of the media data stored in memory, wherein the process for decompressing compressed data is retrieved from the storage device in accordance with the determined compression format, and wherein the media data is decompressed in accordance with the retrieved process, as recited in, for example, dependent claim 8 of the present application. It is noted that the Patent Office has not even attempted to proffer a citation to Yanighara that evinces such a feature. [see Office Action, page 15]. Therefore, Yanagihara does not address the above-identified deficiencies of Birrell."

Examiner respectfully disagrees with this allegation. Yes, Yanighara does not disclose a programmable processor, however, it has been shown in the previous office action that Birrell does (see Fig. 1). In addition, Yanagihara discloses a controller that determines the compression of the speech data (such as one of MPEG-Audio, Dolby, AC-3 and Linear PCM); col. 2 lines 6 – 16 which Applicant has cited. When taken in combination, the processor disclosed by Birrell will be modified to operate with this feature. Thus it is disclosed, when taken in combination, that a programmable processor that is programmed as both a storage controller to retrieve the compressed media data stored in the storage device, and a digital signal processor to decompress the compressed media data stored in memory.

Applicant further alleges:

> "Additionally, it is respectfully submitted the Patent Office has provided no reference, citation or other actual evidence, in Birrell, Yanagihara or otherwise, for combining the references in the manner

> With respect to the combination of Birrell with Gadre, the Patent Office asserts that a skilled artisan would have been motivated to implement the elements of Birrell on a single chip in the manner taught by Gadre "to achieve greater performance, lower design and manufacturing costs, reduced component size, and reduced power requirements." (Office Action, page 11 - page 12) It is respectfully submitted that none of the references relied upon by the Patent Office suggest that the portable audio player of Birrell would be improved by the integration of DSP and DSP-related functions onto the same integrated circuit device as taught by Gadre. The Patent Office's alleged motivation is simply a bald, naked assertion, completely unsupported by any actual, specific, evidence. Consequently, it is respectfully submitted that the Patent Office has not established a prima facie case of obviousness."

Examiner respectfully disagrees that a prima facie case of obviousness has not been made. Applicant is alleging that there is a lack of actual, specific evidence. The reasons for combining "to achieve greater performance, lower design and manufacturing costs, reduced component size, and reduced power requirements" are explicitly stated in Gadre in col. 1 lines 55 – 60. Birrell's invention is drawn to a portable audio player. It is well known that it is desirable to have a smaller device with lower power requirements in a portable device. In fact, Birrell is actually geared to reducing the power consumption of the portable device in other manners. The desirability of reducing size and power requirements is a notoriously well known in the art of portable devices. Thus it would be reasonable to think that one of ordinary skill in the art reviewing the Birrell and Gadre Patents would be interested in reducing the size and power requirements of Birrell using Gadre's implementation.

Applicant further alleges:

> suggested by the Patent Office. Accordingly, it is respectfully submitted that the Patent Office has failed to establish prima facie case of obviousness. Rather, it is respectfully submitted that the rejection based on obviousness is wholly and completely founded upon "knowledge gleaned only from applicant's disclosure." [see M.P.E.P. 21452] Consequently, it is respectfully submitted that the rejection entails hindsight and is, therefore, improper."

Examiner respectfully disagrees with this allegation. First, it is notoriously well known in the art that multiple compression techniques exist in the field of digital audio. Thus it would be desirable to enable a player such as Birrell's to function and playback audio encoded in any of the various compressions. Applicant is suggesting that the combination is based on hindsight. However, Examiner cannot find any passage in Applicants specification in which Applicant suggests why it is desirable to have a player to be able to decode multiple compression schemes. As there is no such passage, the argument is not persuasive.

Applicant further alleges:

> Applicant traverses the Official notice taken that "it would have been obvious to one of ordinary skill in the art at the time of the invention to store procedures in the ROM instead of in the storage device"

As an initial matter, the cited phrase from the Office Action contained a typographical error. The terms ROM and storage device are transposed, the phrase should read "it would have been obvious to one of ordinary skill in the art at the time of the invention to store procedures in the storage instead of in the ROM" as is claimed by Applicant (i.e. storage device stores a process for decompressed compressed data...).

can be integrated onto a single device. All of Birrell's components are components that operate on a digital signal, to be exact, the digital decoding of a digital signal, and thus it would be obvious to implement them onto a single integrated circuit as taught by Birrell. Thus when taken in combination, the single components taught by Birrell implemented on a single integrated circuit do in fact read upon the claimed limitations contrary to Applicant's allegations.

Applicant further alleges:

> "For example, it is noted that the Patent Office acknowledges that Birrell "does not disclose these elements within the processor as a single integrated circuit." (Office Action, page 11) As discussed previously, it is also respectfully submitted that Birrell does not teach the feature of a read channel configured to read data from the storage device, as recited in, for example, dependent claim 5 of the present application. Furthermore, it is respectfully submitted that nowhere does Gadre teach or even suggest the feature of a programmable processor that is programmed as both a storage controller to retrieve the compressed media data stored in a storage device and a digital signal processor to decompress the compressed media data stored in a memory. Therefore, Gadre does not address the above-identified deficiencies of Birrell."

Again, It is respectfully submitted that Applicant has not considered the combination of the references and is instead attacking the references alone. For the same reasons stated above regarding the combination of Birrell in view of Gadre, this argument is not persuasive.

Applicant further alleges:

> "It is respectfully submitted that the Patent Office has made no showing of a motivation to combine based on actual, specific, evidence.

Secondly, Examiner maintains it is well known in the art to store data (such as control programs) on a hard disk instead of a ROM. As further evidence, Ito (U.S. Patent 6,671,343) discloses "the hard disk of the HDD 11 may store, as described above, a control program to be executed by the CPU. If the ROM does not store the control program, it is possible to cause the CPU to operate just in the same way as when the ROM stores the control program by storing the control program in the hard disk before hand and causing the CPU to read them into the RAM." Col. 4 lines 30 – 40. As such, the Official Notice is deemed proper as the statement has been shown to exist in prior art. Furthermore, Ito even offers motivation as to why one would use the hard disk instead of the ROM "This makes it easy to add a control program or upgrade the same".

Applicant further alleges:

> "Dependent claims 10, 19, 26, 37 and 46 variously depend from independent claims 1, 11, 22, 38 and 38, and are, therefore, patentably distinguishable over the combination of Birrell and Terui for at least those reasons stated above with regard to independent claims 1, 11, 22, 38 and 38. For example, it is respectfully submitted that Terui does not teach or even suggest the feature of a programmable processor that is programmed as both a storage controller to retrieve the compressed media data stored in a storage device and a digital signal processor to decompress the compressed media data stored in a memory."

This argument is not persuasive for the same reasons stated above regarding claim 1.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 172 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 172 claims a computer program with no practical application. See the above arguments for further details.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 – 4, 6, 9, 11 – 13, 15, 18, 22, 23, 28 – 31, 33, 36, 38 – 40, 42, 45, 97, 98, 100, 101, 104 – 107, 109, 110 and 169 – 172 are rejected under 35 U.S.C. 102(e) as being anticipated by Birrell (U.S. Patent 6,332,175).

Regarding **Claims 1, 22 and 28**, Birrell discloses:

A media player/recorder (title) comprising:

a storage device to store compressed media data (i.e. a disk controller; Fig. 1 element 104);

a programmable processor which is programmed as a storage controller to retrieve the compressed media data stored in said storage device (i.e. the system contains multiple control programs executed by the data processor, on being a play procedure; Fig. 1 element 102 and col. 5 lines 5 – 33; the play control logic, which is part of the play procedure as shown in Fig. 2, transfers data from the disk to RAM; col. 6 lines 14 – 16);

a memory to store the compressed media data retrieved by said programmable processor (i.e. a RAM; Fig. 1 element 108);

wherein said programmable processor is also programmed as a digital signal processor to decompress the compressed media data stored in said memory (i.e. the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25); and

an output circuit to output the decompressed media data from said programmable processor (i.e. an audio output jack; Fig. 1 element 130).

Regarding **Claims 2, 12, 29 and 39**, in addition to the elements stated above regarding claims 1, 11, 28 and 38, Birrell further discloses:

wherein said memory comprises a dynamic access memory (i.e. a RAM; Fig. 1 element 108).

Regarding **Claims 3, 13, 23, 30 and 40**, in addition to the elements stated above regarding claims 1, 11, 22, 28 and 38, Birrell further discloses:

an interface responsive to said processor to communicate with an external device (i.e. a computer jack; Fig. 1 element 132).

Regarding **Claims 4 and 31**, in addition to the elements stated above regarding claims 1 and 28, Birrell further discloses:

wherein said digital signal processor is configured to control said storage device and to decompress the media data stored in said memory (i.e. the play control logic, which is part of the play procedure as shown in Fig. 2 and controlled by the processor, transfers data from the disk to RAM; col. 6 lines 14 – 16; and the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25).

Regarding **Claims 6, 15, 33 and 42**, in addition to the elements stated above regarding claims 4, 11, 31 and 38, Birrell further discloses:

wherein said digital signal processor comprises a decoder to decompress the media data stored in said memory (i.e. the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25).

Regarding **Claims 9, 18, 36 and 45**, in addition to the elements stated above regarding claims 3, 13, 30 and 40, Birrell further discloses:

wherein the media data is transferred from the external device through said interface for storage on said device (i.e. a jack for downloading compressed audio data onto the hard disk; col. 4 lines 25 – 28).

Regarding **Claims 11 and 38**, Birrell discloses:

A media player/recorder (title) comprising:

a storage device to store compressed media data (i.e. a disk controller; Fig. 1 element 104);

a programmable processor which is programmed as a storage controller to retrieve the compressed media data stored in said storage device (i.e. the system contains multiple control programs executed by the data processor, on being a play procedure; Fig. 1 element 102 and col. 5 lines 5 – 33; the play control logic, which is part of the play procedure as shown in Fig. 2, transfers data from the disk to RAM; col. 6 lines 14 – 16);

wherein said programmable processor is also programmed to decompress the compressed media data stored in said storage device (i.e. the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25); and

an output circuit to output the decompressed media data from said programmable processor (i.e. an audio output jack; Fig. 1 element 130),

wherein said programmable processor comprises a digital signal processor (i.e. the processor operates on digital audio and therefor processes a digital signal), and

uses the same circuit to control said storage device and to decompress the compressed media data stored in memory (i.e. the play control logic, which is part of the play procedure as shown in Fig. 2 and controlled by the processor, transfers data from the disk to RAM; col. 6 lines 14 – 16; and the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25.

Regarding **Claims 97, 100, 104, 106 and 109**, in addition to the elements stated above regarding claims 1, 11, 22 and 28, Birrell further disclose:

wherein said storage device comprises a hard disk (Fig. 1 element 104).

Regarding **Claims 98, 101, 105, 107, 110**, in addition to the elements stated above regarding claims 1, 11, 22 and 28, Birrell further discloses:

wherein said storage device is selected from the group consisting of optical disk, magnetic disk, CD-ROM, CDR, and CDRW (i.e. a hard disk (*magnetic*); Fig. 1 element 104).

Regarding **Claims 169 – 172**, Birrell discloses:

A media player/recorder (title and abstract): comprising:

a storage device to store media data (disk 104; Fig. 1), the media data comprising a plurality of selections (i.e. multiple songs on the disk);

a memory (RAM 108; Fig. 1)

a processor to transfer first portions of at least one of the plurality of selections of the media data from said storage device to said memory (i.e. the system contains multiple control programs executed by the data processor, on being a play procedure; Fig. 1 element 102 and col. 5 lines 5 – 33; the play control logic, which is part of the play procedure as shown in Fig. 2, transfers data from the disk to RAM; col. 6 lines 14 – 16; the play control logic maintains sufficient portions of data in the RAM to ensure that there is no break in the playback; col. 6 lines 5 – 28);

an output device (audio output jack 130; Fig. 1);

wherein said output device outputs the first portions of the at least one of the plurality of sections of media data form the memory (i.e. as the audio data is played back, the portions present in RAM are read out to the audio out jack; col. 6 lines 5 – 28);

wherein when a user selects a particular one of said plurality of selections, said processor retrieves a remaining portion of the particular one of said plurality of selections and said output device outputs the portion and remaining portion the particular one of said plurality of selections (i.e. user selections are added to a play list, which is a queue of tracks to be played by the system; col. 5 lines 1 – 3 and as the audio data is played back, the portions present in RAM are read out to the audio out jack; col. 6 lines 5 – 28).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 7, 16, 34 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175).

Regarding **Claims 7, 16, 34 and 43**, in addition to the elements stated above regarding claims 6, 15, 33 and 42, Birrell further discloses:

storing a process for decompressing compressed data for a selected compression format (i.e. a ROM that stores a decompression procedure for decompressing compressed audio data; col. 5 lines 22 – 44).

Birrell does not explicitly discloses storing the process on the storage device as claimed in claim 1. However, Examiner takes official notice that it would have been obvious to one of ordinary skill in the art at the time of the invention to store the procedures in the ROM instead of in the storage device. Both the ROM and the disk are non-volatile memory devices and therefore are suitable to store system procedure programs. It would be an obvious variation to store the programs instead on the disk. One would have been motivated to do so in order to manufacture the Birrell player with less parts and thus making it less costly as the ROM would not be required if the programs were stored instead on the disk.

Claims 5, 14, 20, 32, 41, 47, 99, 102, 103, 108, 111 and 112 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent 6,308,253).

Regarding **Claims 5, 14, 32 and 41**, in addition to the elements stated above regarding claims 1, 11, 28 and 38, Birrell further discloses:

said digital signal processor to control said storage device and to decompress the media data stored in said memory (i.e. the play control logic, which is part of the play procedure as shown in Fig. 2 and controlled by the processor, transfers data from the disk to RAM; col. 6 lines 14 – 16; and the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25);

said storage controller responsive to said digital signal processor (i.e. a disk controller; Fig. 1 element 106); and

a read channel to read data from said storage device and response to said storage controller (i.e. the CPU and the disk controller are coupled to the same bus allowing the transfer of audio data; the bus coupling the elements together in Fig. 1).

Birrell does not disclose these elements within the programmable processor as a single integrated circuit.

Gadre discloses a significant need as developed for integrating the functionality of multiple DSP chips onto the same integrated circuit. Two primary integration approaches are often used to implement multiple DSP functions on a given integrated

circuit device, a hardware and a software approach; col. 1 lines 53 – 67 and col. 2 lines 1 – 34.

Applying this teaching to the Birrell reference would create a processor comprising a single integrated circuit comprising the elements stated above.

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement these elements onto a single chip such as Birrell's processor in the manner as taught by Gadre. One would have been motivated to do so in order to achieve greater performance, lower design and manufacturing costs, reduced component size, and reduced power requirements; see Gadre, col. 1 lines 56 – 80.

Regarding **Claims 20 and 47**, Birrell discloses

An integrated circuit (CPU) to control a media player/recorder having a storage device having stored thereon compressed media data (Hard Disk), a memory (RAM) and an output circuit (Audio output jack), said integrated circuit comprising:

a programmable processor that is programmed as:

a digital signal processor to control the storage device (i.e. the play control logic, which is part of the play procedure as shown in Fig. 2 and controlled by the processor, transfers data from the disk to RAM; col. 6 lines 14 – 16)

a read channel responsive to said storage controller to read the compressed media data from the storage device (i.e. the CPU and the disk controller are coupled to the same bus allowing the transfer of audio data; the bus coupling the elements

together in Fig. 1 and the CPU uses the play procedure to command the storage device to use the read channel to transfer the data),

wherein said digital signal processor transfers the compressed media data read by said read channel to the memory (i.e. the play control logic, which is part of the play procedure as shown in Fig. 2 and controlled by the processor, transfers data from the disk to RAM; col. 6 lines 14 – 16 and the CPU and the disk controller are coupled to the same bus allowing the transfer of audio data; the bus coupling the elements together in Fig. 1),

wherein said digital signal processor comprises a decoder to decompress the compressed media data stored in said memory (i.e. the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25); and

converts the media data decompressed by said decoder to an analog signal (i.e. a D/A converter; Fig. 1 element 126); and

a storage controller responsive to said digital signal processor (Fig. 1 element 106).

Birrell does not explicitly disclose that the digital signal processor converts the media data decompressed by said decoder to an analog signal or the storage controller (Fig. 1 element 106) is part of the programmable processor.

Gadre discloses a significant need as developed for integrating the functionality of multiple DSP chips onto the same integrated circuit. Two primary integration approaches are often used to implement multiple DSP functions on a given integrated

circuit device, a hardware and a software approach; col. 1 lines 53 – 67 and col. 2 lines 1 – 34.

Applying this teaching to the D/A converter, storage controller and CPU of the Birrell reference would create digital signal processor that converts the media data decompressed by said decoder to an analog signal and a digital signal processor contains a storage controller responsive to said digital signal processor.

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement these elements onto a single chip such as Birrell's processor in the manner as taught by Gadre. One would have been motivated to do so in order to achieve greater performance, lower design and manufacturing costs, reduced component size, and reduced power requirements; see Gadre, col. 1 lines 56 – 80.

Regarding **Claims 99, 102, 103, 108, 111 and 112**, in addition to the elements stated above regarding claims 5, 14, 20, 32, 41 and 47, Birrell further discloses:

wherein said storage device comprises a hard disk (i.e. a hard disk; element 104 Fig. 1), and

wherein said storage controller comprises a hard disk controller (i.e. disk controller 106 Fig. 1).

Claims 8, 17, 25, 35 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Yanagihara (U.S. Patent 6,233,393).

Regarding **Claims 8, 17, 35 and 44**, in addition to the elements stated above regarding claims 7, 16, 34 and 43, Birrell further discloses:

wherein the processor for decompressing compressed data is retrieved from said storage device (i.e. the CPU uses a stored decompression procedure to decompress; col. 5 lines 20 – 25); and

wherein said decoder decompresses the media data in accordance with the retrieved process (i.e. the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25).

Birrell does not explicitly disclose wherein said digital signal processor determines a compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format.

Yanagihara discloses:

wherein said digital signal processor determines a compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format. (i.e. the general controller determines the compression such as one of MPEG audio, Dolby AC-3, and Linear PCM and sets a decoder in accordance with the data received).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement Yanagihara's general controller on the modified CPU of Birrell in order to determine a type of media compression. One would have been motivated to do so to enable the player to be able to play a number of various audio files in different compression formats. With the lack of a standard compression technique in digital audio encoding, multiple formats have been developed (i.e. mp3, AAC, ADPCM, windows media audio, real audio, etc...) and it would have been desirable to have a player such as Birrell's to be enabled to play the different media.

Regarding **Claim 25**, in addition to the elements stated above regarding claim 22 Birrell further discloses:

storing a process for decompressing compressed data for a selected compression format (i.e. a ROM that stores a decompression procedure for decompressing compressed audio data; col. 5 lines 22 – 44).

Birrell does not explicitly discloses storing the process on the storage device as claimed in claim 21. However, Examiner takes official notice that it would have been obvious to one of ordinary skill in the art at the time of the invention to store the procedures in the ROM instead of in the storage device. Both the ROM and the disk are non-volatile memory devices and therefore are suitable to store system procedure programs. It would be an obvious variation to store the programs instead on the disk. One would have been motivated to do so in order to manufacture the Birrell player with

less parts and thus making it less costly as the ROM would not be required if the programs were stored instead on the disk.

Furthermore Birrell discloses:

wherein the processor for decompressing compressed data is retrieved from said storage device (i.e. the CPU uses a stored decompression procedure to decompress; col. 5 lines 20 – 25); and

wherein said decoder decompresses the media data in accordance with the retrieved process (i.e. the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25).

Birrell does not explicitly disclose wherein said digital signal processor determines a compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format.

Yanagihara discloses:

wherein said digital signal processor determines a compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format. (i.e. the general controller determines the compression such as one of MPEG audio, Dolby AC-3, and Linear PCM and sets a decoder in accordance with the data received).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement Yanagihara's general controller on the modified CPU of Birrell in order to determine a type of media compression. One would have been motivated to do so to enable the player to be able to play a number of various audio files in different

compression formats. With the lack of a standard compression technique in digital audio encoding, multiple formats have been developed (i.e. mp3, AAC, ADPCM, windows media audio, real audio, etc...) and it would have been desirable to have a player such as Birrell's to be enabled to play the different media.

Claims 21 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent 6,308,253) in further view of Yanagihara (U.S. Patent 6,233,393).

Regarding **Claims 21 and 48**, in addition to the elements stated above regarding claims 20 and 47, the combination further discloses in Birrell:

storing a process for decompressing compressed data for a selected compression format (i.e. a ROM that stores a decompression procedure for decompressing compressed audio data; col. 5 lines 22 – 44).

The combination does not explicitly discloses storing the process on the storage device as claimed in claim 21. However, Examiner takes official notice that it would have been obvious to one of ordinary skill in the art at the time of the invention to store the procedures in the ROM instead of in the storage device. Both the ROM and the disk are non-volatile memory devices and therefore are suitable to store system procedure programs. It would be an obvious variation to store the programs instead on the disk. One would have been motivated to do so in order to manufacture the Birrell player with

less parts and thus making it less costly as the ROM would not be required if the programs were stored instead on the disk.

Furthermore Birrell in the combination discloses:

wherein the processor for decompressing compressed data is retrieved from said storage device (i.e. the CPU uses a stored decompression procedure to decompress; col. 5 lines 20 – 25); and

wherein said decoder decompresses the media data in accordance with the retrieved process (i.e. the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25).

Birrell does not explicitly disclose wherein said digital signal processor determines a compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format.

Yanagihara discloses:

wherein said digital signal processor determines a compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format. (i.e. the general controller determines the compression such as one of MPEG audio, Dolby AC-3, and Linear PCM and sets a decoder in accordance with the data received).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement Yanagihara's general controller on the modified CPU of Birrell in order to determine a type of media compression. One would have been motivated to do so to enable the player to be able to play a number of various audio files in different

compression formats. With the lack of a standard compression technique in digital audio encoding, multiple formats have been developed (i.e. mp3, AAC, ADPCM, windows media audio, real audio, etc...) and it would have been desirable to have a player such as Birrell's to be enabled to play the different media.

Claims 10, 19, 26, 37 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Terui (U.S. Patent 5,903,871).

Regarding **Claims 10, 19, 26, 37 and 46**, in addition to the elements stated above regarding claims 4, 11, 22, 31 and 38, Birrell does not disclose an input circuit to receive media data, wherein said digital signal processor comprises an encoder to compress the received media data, and wherein the compress[ed] media data received by said input circuit is stored on said storage device.

Terui discloses:

an input circuit to receive media data, (i.e. a microphone for converting voice to an electric signal and an analog to digital converter for converting it to a digital signal; col. 3 lines 4 – 12);

wherein said digital signal processor comprises an encoder to compress the received media data (i.e. the digital signal is compressively transformed; col. 3 lines 25 – 29); and

wherein the compress[ed] media data received by said input circuit is stored on said storage device. (i.e. recording the voice data to the recording media; col. 4 lines 50 – 60).

It would have been obvious to one of ordinary skill in the art to add the features of Terui to the elements of the combination in order to integrate a portable voice recorder into Birrell's portable player. One would have been motivated to do so in order to enhance the operation of the player to provide a voice recording and reproducing apparatus which can easily store and manage a voice file (Terui col. 1 lines 48 - 50).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 - 23, 25, 26, 28 - 48 and 97 - 112 are provisionally rejected under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 1 - 10 of copending Application No. 10/184,302. Although the conflicting claims are not identical, they are not patentably distinct from each other because any

such portable device can be carried anywhere, for example, it can be transported in a briefcase, pocket, and vehicle to name a few. Any such portable media device as discussed above are well known to be connected and have operation in a vehicle, even if it is merely to connect for power.

Claims 1 - 23, 25, 26, 28 - 48 and 97 - 112 are provisionally rejected under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 1 - 5, 20 - 23, 38 - 41, 56 - 59 and 74 - 85 of copending Application No. 10/184,299. Although the conflicting claims are not identical, they are not patentably distinct from each other because any such portable device can be carried anywhere, for example, it can be transported in a briefcase, pocket, and vehicle to name a few. Any such portable media device as discussed above are well known to be connected and have operation in a vehicle, even if it is merely to connect for power.

Claims 1 - 23, 25, 26, 28 - 48 and 97 - 112 are provisionally rejected under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 1 - 10, 26 - 34, 50 - 53, of copending Application No. 10/184,505. Although the conflicting claims are not identical, they are not patentably distinct from each other because the interface is inherently taught via input and output circuits are being applied wherein data is being directed to and from the system. Various types of interfaces are well known depending on port capabilities and necessities to the system environment.

This is a provisional obviousness type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Flanders whose telephone number is (571) 272-7516. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7546. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

acf

SINH TRAN
SUPERVISORY PATENT EXAMINER

OIPE IAP80 AUG 18 2006 PATENT & TRADEMARK OFFICE

PTO/SB/21 (07-06)
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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	09/659,693
Filing Date	09/11/2003
First Named Inventor	Sehat Sutardja
Art Unit	2644
Examiner Name	Andrew C. Flanders
Attorney Docket Number	MP0062

ENCLOSURES *(check all that apply)*

- ☒ Fee Transmittal Form
  - ☒ Fee Attached
- ☐ Amendment / Reply
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Reply to Missing Parts/ Incomplete Application
  - ☐ Reply to Missing Parts under 37 CFR1.52 or 1.53
- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition
- ☐ Petition to Convert to a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Request for Refund
- ☐ CD, Number of CD(s) ____
  - ☐ Landscape Table on CD
- ☐ After Allowance Communication to TC
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☒ Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- ☐ Proprietary Information
- ☐ Status Letter
- ☒ Other Enclosure(s) *(please identify below)*:

Return receipt postcard

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm	Harness, Dickey & Pierce, P.L.C.		
Signature			
Printed Name	Damian M. Aquino		
Date	August 18, 2006	Reg. No.	54,964

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	Maggie Purvis	Express Mail Label No.	EV 757 777 737 US (8/18/2006)
Signature		Date	August 18, 2006

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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OIPE IAP80
AUG 18 2006
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/184,505	06/26/2002	Sehat Sutardja	MP0062.11	5761

26703 7590 01/11/2006

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EXAMINER	
FLANDERS, ANDREW C	
ART UNIT	**PAPER NUMBER**
2644	

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

OIPE IAP80
AUG 18 2006
PATENT & TRADEMARK OFFICE

Office Action Summary

Application No.	Applicant(s)	
10/184,505	SUTARDJA ET AL.	
Examiner	**Art Unit**	
Andrew C. Flanders	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 September 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-101* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-101* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

In view of the Appeal Brief filed on 23 September 2005, PROSECUTION IS HEREBY REOPENED. A new set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 96, 97 and 100 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 96 recites the limitation "the media player/recorder". There is insufficient antecedent basis for this limitation in the claim.

Claims 97 and 100 directly contradict the independent claims they depend upon, 96 and 99. Claims 96 and 99 recite the limitation "wherein the computer/media player does not store the encoded media data". However, claims 97 and 100 recite a limitation of storing the media data. It is unclear to the examiner how it is possible to not store the encoded media data and also store it. Clarification and correction is respectfully requested.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 – 7, 10 – 16, 19, 26 – 31, 28 – 40, 43, 56 – 59, 62, 72 – 75, 78, 83 – 87, 89 – 94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6, 32,175) in view of Gadre (U.S. Patent6,308,253) in further view of Shanahan (U.S. Patent 6,496,692).

Regarding **Claims 1, 26, 82 and 89**, Birrell discloses:

A media player/recorder (Fig. 1) comprising;

a receiver to receive a signal representing encoded media data (Fig. 1 element 132);

a storage device to store the encoded media data (Fig. 1 element 106);

a programmable processor (Fig. 1 element 102) programmed as:

b) a digital signal processor to decode the encoded media data retrieved by the storage controller (i.e. play control logic plays that data (266) by reading it from the flash memory and decompressing it; col. 8 lines 10 – 15; play logic being controlled by the processor; col. 5 lines 5 – 30); and

an output circuit to output the decoded media form the processor (Fig. 1 elements 128 and 130)

Birrell does not explicitly disclose the programmable processor programmed as:

a) a storage controller to retrieve the encoded media data from the storage device.

Birrell does disclose a disk controller Fig. 1 element 106. The disk controller is not disclosed as being part of the programmable processor.

Gadre discloses that a significant need has developed for a manner of integrating the functionality of multiple DSP chips onto the same integrated circuit. Two primary integration approaches are often used to implement multiple DSP functions on a given integrated circuit device, a hardware and software approach; col. 1 lines 53 – 67 and col. 2 lines 1 – 34).

It would have been obvious to one of ordinary skill in the art to implement Birrell's other features such as the storage controller on a single chip such as Applicant's Claimed processor in the manner as taught by Gadre. One would have been motivated to do so in order to achieve greater performance, lower design and manufacturing costs, reduced component size, and reduced power requirements; col. 1 lines 56 – 60.

Furthermore the combination fails to disclose the receiver as a wireless receiver. Shanahan discloses:

A wireless receiver (i.e. a wireless communication link; col. 3 line 20).

It would have been obvious to one of ordinary skill in the art to combine Shanahan's wireless transfer method with the modified processor of the combination in order to effectively transfer audio information over the computer jack of the combination. One would have been motivated to do so to eliminate the need for a wired connection thus allowing a quicker and more convenient connection.

Regarding **Claims 2, 27, 85 and 92**, in addition to the elements stated above regarding claims 1, 26, 82 and 89, the combination of Birrell in view of Gadre and in further view of Shanahan further discloses:

the media data is encoded by a process that compresses the media data (i.e. compressed audio data is received from a host computer that compresses the audio data col. 4 lines 38 – 45 in Birrell); and

the encoded media data is decoded by a process that decompresses the media data (i.e. play control logic plays that data (266) by reading it from the flash memory and decompressing it; col. 8 lines 10 – 15; play logic being controlled by the processor; col. 5 lines 5 – 30 in Birrell).

Regarding **Claims 3, 86 and 93**, in addition to the elements stated above regarding claims 1, 82 and 89, the combination of Birrell in view of Gadre and in further view of Shanahan further discloses:

wherein the processor comprises a single integrated circuit (i.e. in the combination the multiple functions in Birrell are implemented in the manner taught by Gadre; See Birrell Fig. 1 and Gadre col. 1 lines 56 – 60).

Regarding **Claims 4 and 28**, in addition to the elements stated above regarding claims 1 and 26, the combination of Birrell in view of Gadre and in further view of Shanahan further discloses:

a read channel responsive to the storage controller to read the encoded media data from the storage device (i.e. the CPU and the disk controller are coupled to the same bus allowing transferring from the disk to the CPU; Fig. 1 elements 102 and 106 of Birrell).

Regarding **Claims 5 and 29**, in addition to the elements stated above regarding claims 1 and 26, the combination of Birrell in view of Gadre and in further view of Shanahan further discloses:

further comprising a memory to store the encoded media data retrieved by the storage controller (Fig. 1 element 110 of Birrell).

Regarding **Claims 6, 30, 87 and 94**, in addition to the elements stated above regarding claims 5, 28, 82 and 89, the combination of Birrell in view of Gadre and in further view of Shanahan further discloses:

wherein the digital signal processor comprises a decoder to decode the encoded media data stored in the memory (i.e. the processing unit decompresses a portion of the audio data; col. 4 lines 30 – 35).

Regarding **Claims 7 and 31**, in addition to the elements stated above regarding claims 1 and 26, the combination of Birrell in view of Gadre and in further view of Shanahan further discloses:

storing a process for decoding the encoded media data for a selected code (i.e. a ROM that stores a decompression procedure for decompressing compressed audio data; col. 5 lines 22 – 24 in Birrell).

Birrell in view of Gadre does not explicitly disclose storing the process on the storage device as claimed in claim 1. However, Examiner takes official notice that it

would have been obvious to one of ordinary skill in the art at the time of the invention to store the procedures in the ROM instead of in the storage device. Both the ROM and the disk are non-volatile memory devices and therefore are suitable to store system procedure programs. It would be an obvious variation to store the programs instead on the disk. One would have been motivated to do so in order to manufacture the combination of Birrell in view of Gadre with less parts and thus making it less costly as the ROM would not be required if the programs were stored instead on the disk.

Regarding **Claims 10 and 34**, in addition to the elements stated above regarding claims 1 and 26, the combination of Birrell in view of Gadre and in further view of Shanahan further discloses:

wherein the processor obtains the encoded media data from the signal representing the encoded media data (play control logic plays that data (266) by reading it from the flash memory and decompressing it; col. 8 lines 10 – 15; play logic being controlled by the processor; col. 5 lines 5 – 30).

Regarding **Claims 11 and 35**, in addition to the elements stated above regarding claims 1 and 26, the combination of Birrell in view of Gadre and in further view of Shanahan further discloses:

a wireless transmitter to transmit the encoded media data (i.e. a number of portable devices (wireless telephone, pager, handheld computer, personal digital assistant) with a number of possible data transfer sources (internet, CD, DVD, cassette

player, VCR, digital camera or any other suitable storage device) via various interfaces (serial port, parallel port. Ethernet links, wireless or infrared); col. 3 lines 6 – 29; and the programmer programs the data into the memory of the portable device; col. 3 liens 30 – 37 in Shanahan).

Regarding **Claims 12 and 36**, in addition to the elements stated above regarding claims 1 and 35, the combination of Birrell in view of Gadre and in further view of Shanahan further discloses:

wherein the digital signal processor causes the wireless transmitter to transmit the encoded media data (i.e. a number of portable devices (wireless telephone, pager, handheld computer, personal digital assistant) with a number of possible data transfer sources (internet, CD, DVD, cassette player, VCR, digital camera or any other suitable storage device) via various interfaces (serial port, parallel port. Ethernet links, wireless or infrared); col. 3 lines 6 – 29; and the programmer programs the data into the memory of the portable device; col. 3 liens 30 - 37).

Further more, neither the combination of Birrell in view of Gadre and in further view of Shanahan explicitly disclose outputting the analog signal to the output circuit while the wireless transmitter transmits the encoded media data.

However, Shanahan discloses the claimed transferring method while Birrell discloses the claimed playback method and the examiner takes official notice that it would have been obvious to one of ordinary skill in the art to do this at the same time. One would have been motivated to do so in order for a user to preview an

Regarding **Claims 13 and 37**, in addition to the elements stated above regarding claims 1 and 26, the combination of Birrell in view of Gadre and in further view of Shanahan discloses:

wherein the storage device stores a list of identifiers of desired encoded media selections (i.e. information about the disk storage location of each track is stored in the table of contents on the hard disk; col. 4 line 65 in Birrell);

wherein the wireless receiver receives a signal representing an identifier of an offered encoded media selection (i.e. the host computer can alter the table of contents via the computer jack; col. 5 liens 4 – 8 in Birrell and col. 3 line 20 in Shanahan);

wherein the storage device stores the offered encoded media selection when the identifier of the offered encoded media selection corresponds to the identifier of one of the desired encoded media selections (i.e. each track may be stored on the hard disk; col. 4 lines 49 – 50 and the host computer can alter the table of contents via the computer jack; col. 5 liens 4 – 8 in Birrell; and the programmer programs the data into the memory of the portable device; col. 3 liens 30 – 37 Shanahan).

Regarding **Claims 14 and 38**, in addition to the elements stated above regarding claims 13 and 37, the combination of Birrell in view of Gadre and in further view of Shanahan discloses:

a transmitter to transmit a signal representing the identifiers of the desired encoded media data selections (i.e. the host computer can access the table of contents via the computer jack; col. 5 liens 4 – 8 in Birrell).

a wireless transmitter (i.e. a wireless communication link; col. 3 line 20 in Shanahan and (wireless telephone, pager, handheld computer, personal digital assistant) with a number of possible data transfer sources (internet, CD, DVD, cassette player, VCR, digital camera or any other suitable storage device) via various interfaces (serial port, parallel port. Ethernet links, wireless or infrared); col. 3 lines 6 – 29; and the programmer programs the data into the memory of the portable device; col. 3 liens 30 – 37).

Regarding **Claims 15 and 39**, in addition to the elements stated above regarding claims 13 and 26, the combination of Birrell in view of Gadre and in further view of Shanahan discloses:

a transmitter (i.e. compressed data received via a computer jack; col. 4 lines 43 – 45 in Birrell); and

wherein the storage device stores a list of identifiers of desired encoded media selections on the storage device(i.e. information about the disk storage location of each track is stored in the table of contents on the hard disk; col. 4 line 65 in Birrell);

wherein the receiver receives a signal representing a request for a sought encoded media selection, the request including an identifier of the sought encoded

media selection (i.e. the host computer can access the table of contents to replace or update it; col. 5 lines 4 – 8 in Birrell)

Shanahan discloses:

a wireless transmitter (i.e. a wireless communication link; col. 3 line 20).

The combination further disclose:

wherein the wireless transmitter transmits one of the shared encoded media selections when the identifier of the sought encoded media selection corresponds to the identifier of the one of the shared encoded media selections (i.e. a number of portable devices (wireless telephone, pager, handheld computer, personal digital assistant) with a number of possible data transfer sources (internet, CD, DVD, cassette player, VCR, digital camera or any other suitable storage device) via various interfaces (serial port, parallel port. Ethernet links, wireless or infrared); col. 3 lines 6 – 29; and the programmer programs the data into the memory of the portable device; col. 3 liens 30 – 37 in Shanahan).

Regarding **Claims 16 and 40**, in addition to the elements stated above regarding claims 15 and 39, the combination of Birrell in view of Gadre and in further view of Shanahan discloses:

the transmitter transmits a signal representing the identifiers of the shared encoded media selections (i.e. compressed data received via a computer jack; col. 4 lines 43 – 45 in Birrell).

a wireless transmitter (i.e. a number of portable devices (wireless telephone, pager, handheld computer, personal digital assistant) with a number of possible data transfer sources (internet, CD, DVD, cassette player, VCR, digital camera or any other suitable storage device) via various interfaces (serial port, parallel port. Ethernet links, wireless or infrared); col. 3 lines 6 – 29; and the programmer programs the data into the memory of the portable device; col. 3 lines 30 – 37 in Shanahan).

Regarding **Claims 19 and 43**, in addition to the elements stated above regarding claims 1 and 26, the combination of Birrell in view of Gadre and in further view of Shanahan further discloses:

wherein the media player/recorder has a display unit (Fig. 1 element 118 in Birrell);

wherein the storage device stores a list of desired items of interest (i.e. a table of contents col. 4 lines 49 – 65 in Birrell);

wherein the receiver receives a signal representing an offered item of interest (i.e. the host computer can alter the table of contents via the computer jack; col. 5 lines 4 – 8 in Birrell)

The combination does not disclose the receiver as a wireless transmitter.

Shanahan discloses:

a wireless transmitter (i.e. a wireless communication link; col. 3 line 20). It would have been obvious to one of ordinary skill in the art to combine Shanahan's wireless transfer method with the modified processor of the combination in order to

effectively transfer audio information over the combination's computer jack. One would have been motivated to do so to eliminate the need for a wired connection thus allowing a quicker and more convenient connection.

The combination further discloses:

wherein the display unit to indicates a match when the offered item of interest corresponds to one of the desired items of interest (i.e. a CPU; Fig. 1 element 102; and the table of contents can be viewed on the display, allowing the user to select tracks to be played; col. 4 lines 66 – 67 and col. 5 lines 1 – 5).

Regarding **Claims 56 and 72**, claims 56 and 72 are rejected under the same grounds as claims 1, 5 and 13 stated above.

Regarding **Claims 57 and 73**, in addition to the elements stated above regarding claims 56 and 72, claims 57 and 73 are rejected under the same grounds as claims 14 stated above.

Regarding **Claims 58 and 74**, claims 58 and 74 are rejected under the same grounds as claims 1, 5 and 15 stated above.

Regarding **Claims 59 and 75**, in addition to the elements stated above regarding claims 56 and 74, claims 59 and 75 are rejected under the same grounds as claims 14 stated above.

Regarding **Claims 62 and 78**, claims 62 and 78 are rejected under the same grounds as claims 1, 5 and 19 above.

Regarding **Claims 83 and 90**, in addition to the elements stated above regarding claims 82 and 89, claims 83 and 90 are rejected under the same grounds as claims 5 and 6 stated above.

Regarding **Claims 84 and 91**, in addition to the elements stated above regarding claims 83 and 90, the combination further discloses:

wherein the non-volatile memory comprises a flash memory (Fig. 1 element 110)

Claims 8, 32, 50, 51, 53 – 55, 66, 67, 69 – 71, 88, and 95 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent 6,308,253) and in further view of Shanahan (U.S. Patent 6,496,692) and in further view of Yanagihara (U.S. Patent 6,233,393).

Regarding **Claims 8, 32, 88 and 95**, in addition to the elements stated above regarding claims 7, 31, 87 and 94, the combination of Birrell in view of Gadre and in further view of Shanahan further discloses:

wherein the process for decoding the encoding media data is retrieved from the storage device (i.e. the CPU uses a stored decompression procedure to decompress; col. 5 lines 20 – 25 in Birrell); and

wherein the decoder decodes the encoded media data in accordance with the retrieved process (i.e. the decompression procedure is for decompressing the media; col. 5 liens 20 – 25 and col. 4 lines 30 – 40 in Birrell).

Birrell in view of Gadre does not explicitly disclose wherein the digital signal processor determines a code of the encoded media retrieved by the digital signal processor and retrieving the processes in accordance with the determined code.

Yanagihara discloses:

wherein the digital signal processor determines a code of the encoded media data retrieved by the digital signal processor and retrieving the processes in accordance with the determined code (i.e. the general controller determines the compression such as one of MPEG audio, Dolby AC-3, and Linear PCM and sets a decoder in accordance with the data received).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement Yanagihara's general controller on the modified CPU of the combination in order to determine a type of media compression. One would have been motivated to do so to enable the player of the combination to be able to play a number of various audio files in different compression formats. With the lack of a standard compression technique in digital audio encoding, multiple formats have been developed (i.e. mp3, AAC, ADPCM, windows media audio, real audio, etc...) and it would have

been desirable to have a player such as Birrell's to be enabled to play the different media.

Regarding **Claims 50 and 66**, claims 50 and 66 are rejected under the same grounds as claims 1, 5, 7 and 8 stated above.

Regarding **Claims 51 and 67**, in addition to the elements stated above regarding claims 50 and 66, claims 51 and 67 are rejected under the same grounds as claim 2 above.

Regarding **Claims 53 and 69**, in addition to the elements stated above regarding claims 50 and 66, claims 53 and 69 are rejected under the same grounds as claim 10 above.

Regarding **Claims 54 and 70**, in addition to the elements stated above regarding claims 50 and 66, claims 54 and 70 are rejected under the same grounds as claim 11 above.

Regarding **Claims 55 and 71**, in addition to the elements stated above regarding claims 54 and 70, claims 55 and 71 are rejected under the same grounds as claim 12 above.

Claims 9 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent 6,308,253) and in further view of Shanahan (U.S. Patent 6,496,692) and in further view of Terui (U.S. Patent 5,903,871).

Regarding **Claims 9 and 33**, in addition to the elements stated above regarding claims 1 and 26, the combination of Birrell in view of Gadre and in view of Shanahan does not disclose wherein the media player/recorder has an input circuit to receive unencoded media data, wherein the digital signal processor comprises an encoder to encode the unencoded media data and wherein the encoded media data encoded by the digital signal processor is stored on the storage device.

Terui discloses:

wherein the media/player recorder has an input circuit to receive unencoded media data (i.e. a microphone for converting voice to an electric signal and an analog to digital converter for converting it to a digital signal; col. 3 lines 4 – 12);

wherein the digital signal processor comprises an encoder to encode the unencoded media data (i.e. the digital signal is compressively transformed; col. 3 lines 25 – 29); and

wherein the encoded media data encoded by the digital signal processor is stored on the storage device (i.e. recording the voice data to the recording media; col. 4 lines 50 – 60).

It would have been obvious to one of ordinary skill in the art to add the features of Terui to the elements of the combination in order to integrate a portable voice recorder into the portable player of the combination. One would have been motivated to do so in order to enhance the operation of the player of the combination to provide a voice recording and reproducing apparatus which can easily store and manage a voice file (Terui col. 1 lines 48 - 50).

Claims 17,18, 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent

6,308,253) and in further view of Shanahan (U.S. Patent 6,496,692) and in further view of Kaloi (U.S. Patent 5,511,000).

Regarding **Claims 17 and 41**, in addition to the elements stated above regarding claims 1 and 26, the combination of Birrell in view of Gadre and in further view of Shanahan does not disclose an interface to receive a signal representing biometric data and wherein the storage device stores the biometric data

Kaloi discloses:

an interface to receive a signal representing biometric data (i.e. an electronic playback system with an input to monitor heart rate; col. 6 lines 45 – 49); and

storing the biometric data (i.e. the SSRPD information is stored to a RAM abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Kaloi's sensor with the combination of Birrell in view of Gadre. One would have been motivated to do so to allow users of the combination to monitor heart rate during exercise to maintain a desired level.

The combination discloses:

wherein the storage device stores the biometric data (storing the SSRPD information in Kaloi in the storage device of Birrell)

Regarding **Claims 18 and 42**, in addition to the elements stated above regarding claims 17 and 41, the combination of Birrell in view of Gadre and in further view of Shanahan and in further view of Kaloi further discloses:

and wherein the interface transmits a signal (i.e. the host computer can access the table of contents via the computer jack; col. 5 liens 4 – 8 in Birrell).

The combination does not explicitly disclose transmitting biometric data stored on the storage device. However it would have been obvious to one of ordinary skill in the art to do so. One would have been motivated to allow the modified player of the combination to transmit the biometric data to the main computer in order to store it to compare previous workouts and notice trends.

Claims 20 – 22, 44 – 46, 63 – 65 and 79 – 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent 6,308,253) and in further view of Shanahan (U.S. Patent 6,496,692) and in further view of Lazar (U.S. Patent 5,818,389).

Regarding **Claims 20, 44, 63 and 79** in addition to the elements stated above regarding claims 19, 43, 62 and 78, the combination of Birrell in view of Gadre in further

view of Shanahan does not disclose the elements of the directional antenna as claimed by applicant in claim 20. Lazar discloses:

a directional antenna to determine a direction to a transmitter of the signal representing the offered item of interest (i.e.. fig. 1 element 12 and the directional antenna is rated and signals are measured by the spectrum analyzer in the direction and measured signals are stored by the computer; col. 7 lines 15 – 20); and

wherein the display unit displays the direction (i.e. the computer software records and reads out the data; col. 7 lines 1 – 15).

Shanahan discloses using the antenna in a media player and controlling it with a DSP (i.e. a number of portable devices (wireless telephone, pager, handheld computer, personal digital assistant) with a number of possible data transfer sources (internet, CD, DVD, cassette player, VCR, digital camera or any other suitable storage device) via various interfaces (serial port, parallel port. Ethernet links, wireless or infrared); col. 3 lines 6 – 29; and the programmer programs the data into the memory of the portable device; col. 3 liens 30 - 37).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement a directional antenna to locate a signal for Shanahan's wireless antenna in order to reliably improve the reception of the signals' col. 4 lines 1 – 10 in Lazar.

Regarding **Claims 21, 22, 45, 46, 64, 65, 80 and 81**, in addition to the elements stated above regarding claims 20, 44, 63, 79 and 79, the combination of Birrell in view of Gadre and in further view of Shanahan and in further view of Lazar further discloses:

a transmitter to transmit contact information to the transmitter of the signal representing the offered item of interest (i.e. the host computer can access the table of contents via the computer jack; col. 5 liens 4 – 8 in Birrell).

The combination of Birrell in view of Gadre does not disclose the transmitter as a wireless transmitter.

Shanahan discloses:

a wireless transmitter (i.e. a wireless communication link; col. 3 line 20). It would have been obvious to one of ordinary skill in the art to combine Shanahan's wireless transfer method with the modified processor of the combination in order to effectively transfer audio information over the combination's computer jack. One would have been motivated to do so to eliminate the need for a wired connection thus allowing a quicker and more convenient connection.

Shanahan discloses that the DSP causes the transmitter to transmit the signal (i.e. a number of portable devices (wireless telephone, pager, handheld computer, personal digital assistant) with a number of possible data transfer sources (internet, CD, DVD, cassette player, VCR, digital camera or any other suitable storage device) via various interfaces (serial port, parallel port. Ethernet links, wireless or infrared); col. 3 lines 6 – 29; and the programmer programs the data into the memory of the portable device; col. 3 liens 30 - 37).

Claims 23, 24, 47 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent 6,308,253) and in further view of Shanahan (U.S. Patent 6,496,692) and in further view of Yamagami (U.S. Patent 6,334,025).

Regarding **Claims 23 and 47** in addition to the elements stated above regarding claims 1 and 26, the combination of Birrell in view of Gadre does not disclose the limitations of the camera as disclosed in claim 23.

Yamagami discloses:

a portable media player/recorder implemented within a digital camera having an image sensor (i.e. an apparatus for processing audio and image data with an image sensing elements; Fig. 1);

wherein the digital signal processor encodes image data representing an image captured by the by the image sensor (i.e. the image is subjected to an A/D conversion; col. 6 lines 14 – 16);

wherein the storage controller stores the encoded image data on the storage device (i.e. storing the images on a recording medium; col. 6 line 25 – 29).

It would have been obvious to one of ordinary skill in the art to add the features of a camera as taught by Yamagami to the portable media player of the combination. It would have been desirable to do so to provide a digital audio player with the capability of audio and video recording and reproducing in the same device which was well known in the art at the time of the invention, see Yamagami col. 1 lines 10 – 15.

Regarding **Claims 24 and 48**, in addition to the elements stated above regarding claims 23 and 47, the combination of Birrell in view of Gadre in view of Shanahan and in further view of Yamagami further discloses:

wherein the digital camera further comprises a display (Fig. 2);

the storage controller retrieves the encoded image data from the storage device (i.e. recording medium interface that retrieves the data for output; fig. 1 element 104)

the digital signal processor decodes the retrieved encoded image data (Fig. 1 element; 26)

the digital signal processor sends a signal representing the decoded image data to the display (Fig. 1 element 23).

Yamagami does not explicitly disclose the same digital processor decodes and encodes the image. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the processor of the combination to do so. One would have been motivated to implement the two devices into a single chip in order to achieve greater performance, lower design and manufacturing costs, reduced component size, and reduced power requirements; Gadre col. 1 lines 56 – 60.

Claims 25 and 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent 6,308,253) and in further view of Shanahan (U.S. Patent 6,496,692) and in further view of Yamagami (U.S. Patent 6,334,025) and in further view of Endo (U.S. Patent 6,763,182).

Regarding **Claims 25 and 49**, in addition to the elements stated above regarding claims 23 47, the combination does not disclose the camera as a digital motion picture camera.

Endo discloses:

wherein the digital camera is a digital motion picture camera and the encoded image data represents a motion picture (Fig. 5).

It would have been obvious to one of ordinary skill in the art to modify the camera of the combination in order to make it a motion picture camera as taught by Endo. One would have been motivated to do so in order to record data of multiple categories; Endo col. 1 lines 28 – 39.

Claims 52 and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent 6,308,253) and in further view of Shanahan (U.S. Patent 6,496,692) and in further view of Yanagihara (U.S. Patent 6,233,393) and in further view of Terui (U.S. Patent 5,903,871).

Regarding **Claims 52 and 68**, in addition to the elements stated above regarding claims 50 and 66, the combination of Birrell in view of Gadre and in view of Shanahan and in further view of Yanigihara does not disclose wherein the media player/recorder has an input circuit to receive unencoded media data, wherein the digital signal processor comprises an encoder to encode the unencoded media data and wherein the encoded media data encoded by the digital signal processor is stored on the storage device.

Terui discloses:

receiving unencoded media data (i.e. a microphone for converting voice to an electric signal and an analog to digital converter for converting it to a digital signal; col. 3 lines 4 – 12);

encoding the unencoded media data (i.e. the digital signal is compressively transformed; col. 3 lines 25 – 29); and

storing the encoded media data encoded by the digital signal processor on the storage device (i.e. recording the voice data to the recording media; col. 4 lines 50 – 60).

It would have been obvious to one of ordinary skill in the art to add the features of Terui to the elements of the combination in order to integrate a portable voice recorder into the portable player of the combination. One would have been motivated to do so in order to enhance the operation of the player of the combination to provide a voice recording and reproducing apparatus which can easily store and manage a voice file (Terui col. 1 lines 48 - 50).

Claims 60, 61, 76 and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent 6,308,253) and in further view of Shanahan (U.S. Patent 6,496,692) and in further view of Yanagihara (U.S. Patent 6,233,393) and in further view of Kaloi (U.S. Patent 5,511,000).

Regarding **Claims 60 and 76**, in addition to the elements stated above regarding claims 50 and 66, the combination does not disclose an interface to receive a signal representing biometric data and wherein the storage device stores the biometric data

Kaloi discloses:

receiving biometric data (i.e. an electronic playback system with an input to monitor heart rate; col. 6 lines 45 – 49); and

storing the biometric data (i.e. the SSRPD information is stored to a RAM abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Kaloi's sensor with the combination. One would have been motivated to do so to allow users of the combination to monitor heart rate during exercise to maintain a desired level.

The combination discloses:

Storing the biometric data on the storage device (storing the SSRPD information in Kaloi in the storage device of Birrell)

Regarding **Claims 61 and 77**, in addition to the elements stated above regarding claims 60 and 76, the combination further discloses:

and wherein the interface transmits a signal (i.e. the host computer can access the table of contents via the computer jack; col. 5 liens 4 – 8 in Birrell).

The combination does not explicitly disclose transmitting biometric data stored on the storage device. However it would have been obvious to one of ordinary skill in the art to do so. One would have been motivated to allow the modified player of the combination to transmit the biometric data to the main computer in order to store it to compare previous workouts and notice trends.

Claims 96 – 101 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Shanahan (U.S. Patent 6,496,692) and in further view of Yanagihara (U.S. Patent 6,233,393) and in further view of Taura (U.S. Patent 6,516,039).

Regarding **Claims 96 and 99**, Birrell discloses:

A method comprising:

receiving a signal representing encoded media data (Fig. 1 element 132);

obtaining the encoded media data from the signal (storing the compressed audio data on the disk received from the computer jack; Fig. 1 element 104);

decoding the encoded media data (i.e. play control logic plays that data (266) by reading it from the flash memory and decompressing it; col. 8 lines 10 – 15; play logic being controlled by the processor; col. 5 lines 5 – 30);

outputting the decoded media data (i.e. Fig. 1 element 128 and 130);

storing a process for decoding the encoded media data for a selected code (i.e. a ROM that stores a decompression procedure for decompressing compressed audio data; col. 5 lines 22 – 24 in Birrell);

decoding the encoded media data in accordance with the retrieved process (i.e. the decompression procedure is for decompressing the media; col. 5 liens 20 – 25 and col. 4 lines 30 – 40 in Birrell)

Birrell in view of Gadre does not explicitly disclose storing the process on the storage device as claimed in claim 1. However, Examiner takes official notice that it

would have been obvious to one of ordinary skill in the art at the time of the invention to store the procedures in the ROM instead of in the storage device. Both the ROM and the disk are non-volatile memory devices and therefore are suitable to store system procedure programs. It would be an obvious variation to store the programs instead on the disk. One would have been motivated to do so in order to manufacture the combination of Birrell in view of Gadre with less parts and thus making it less costly as the ROM would not be required if the programs were stored instead on the disk.

Furthermore the Birrell fails to disclose the receiver as a wireless receiver. Shanahan discloses:

a wireless receiver (i.e. a wireless communication link; col. 3 line 20).

It would have been obvious to one of ordinary skill in the art to combine Shanahan's wireless transfer method with the modified processor of the combination in order to effectively transfer audio information over the computer jack of the combination. One would have been motivated to do so to eliminate the need for a wired connection thus allowing a quicker and more convenient connection.

The combination also fails to disclose:

determining a code of the encoded media data;

decoding the encoded media data in accordance with the determined code; and

wherein the media player/recorder does not store the encoded media data.

determining a code of the encoded media data and decoding the encoded media data in accordance with the determined code (i.e. the general controller determines the

compression such as one of MPEG audio, Dolby AC-3, and Linear PCM and sets a decoder in accordance with the data received).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement Yanagihara's general controller on the modified CPU of the combination in order to determine a type of media compression. One would have been motivated to do so to enable the player of the combination to be able to play a number of various audio files in different compression formats. With the lack of a standard compression technique in digital audio encoding, multiple formats have been developed (i.e. mp3, AAC, ADPCM, windows media audio, real audio, etc...) and it would have been desirable to have a player such as Birrell's to be enabled to play the different media.

The combination of Birrell in view of Shanahan in further view of Yanagihara fails to explicitly disclose wherein the media player/recorder does not store the encoded media data.

Taura discloses wherein the media player/recorder does not store the encoded media data (i.e. Taura discloses a digital audio broadcast receiver/player; Fig. 1 that does not store the broadcast prior to playback).

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Taura's digital audio broadcast device to the combination in order to receive, decode and playback digital audio broadcasts. One would have been motivated to do so in order to add additional features to the player of the combination. Many portable playback devices (i.e. CD Players, Tape players, etc...)

include radio tuners as well as the playback device. It would be desirable to add this feature to the player of the combination to operate in a manner similar to most playback devices.

Regarding **Claims 97 and 100**, in addition to the elements stated above regarding claims 96 and 99, the combination further discloses:

storing the encoded media data (Fig. 104 in Birrell); and

wherein decoding the encoded media data comprises decoding the stored encoded media data (i.e. the processing unit decompresses a portion of the audio data; col. 4 lines 30 – 35 in Birrell).

Regarding **Claims 98 and 101**, in addition to the elements stated above regarding claims 96 and 99, the combination further discloses:

the media data is encoded by a process that compresses the media data (i.e. compressed audio data; col. 4 in Birrell); and

the encoded media data is decoded by a process that decompresses the encoded media data (i.e. the processing unit decompresses a portion of the audio data; col. 4 lines 30 – 35 in Birrell).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-50 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-53 of copending Application No. 10/184,302. Although the conflicting claims are not identical, they are not patentably distinct from each other because any such portable device can be carried anywhere, for example, it can be transported in a briefcase, pocket, and vehicle to name a few. Any such portable media device as discussed above are well known to be connected and have operation in a vehicle, even if it is merely to connect for power.

Claims 1-101 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-85 of copending Application No. 10/184,299. Although the conflicting claims are not identical, they are not patentably distinct from each other because any such portable device can

be carried anywhere, for example, it can be transported in a briefcase, pocket, and vehicle to name a few. Any such portable media device as discussed above are well known to be connected and have operation in a vehicle, even if it is merely to connect for power.

Claims 1-101 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 09/659,693. Although the conflicting claims are not identical, they are not patentably distinct from each other because the interface is inherently taught via input and output circuits are being applied wherein data is being directed to and from the system. Various types of interfaces are well known depending on port capabilities and necessities to the system environment.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Flanders whose telephone number is (571) 272-7516. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571) 272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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PRIMARY EXAMINER

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Please find below and/or attached an Office communication concerning this application or proceeding.

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	Andrew C. Flanders	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-67* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-67* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

In view of the Appeal Brief filed on 28 November 2005, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below. To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 – 8, 10 – 16, 21, 24, 28 – 33, 36 – 42, 47, 50, 54 – 59 and 61 - 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent 6,308,253) in view of Shanahan (U.S. Patent 6,496,692) and in further view of Lau (U.S. Patent 6,772,212).

Regarding **Claims 1, 28, 54, 55, 61 and 62**, Birrell discloses:

An apparatus comprising:

a media player/recorder (fig. 1), the media player/recorder comprising:

a receiver to receive a signal representing encoded media data (Fig. 1 element 132);

a storage device to store the encoded media data (Fig. 1 element 104);

a storage controller to retrieve the encoded media data from the storage device (Fig. 1 element 106)

a programmed processor (Fig. 1 element 102) that is programmed as

b) a digital signal processor to decode the encoded media data retrieved by the storage controller (i.e. the processing unit decompresses a portion of the audio data stored in the RAM; col. 4 lines 30 – 35);

and an output circuit to output the decoded media data form the processor (Fig. 1 element 130).

Birrell does not explicitly disclose that the storage controller is programmed as part of the programmed processor.

Gadre discloses that a significant need has developed for a manner of integrating the functionality of multiple DSP chips onto the same integrated circuit. Two primary integration approaches are often used to implement multiple DSP functions on a given integrated circuit device, a hardware and software approach; col. 1 lines 53 – 67 and col. 2 lines 1 – 34)

It would have been obvious to one of ordinary skill in the art to implement Birrell's additional features on a single chip such as Applicant's Claimed processor in the manner as taught by Gadre. One would have been motivated to do so in order to achieve greater performance, lower design and manufacturing costs, reduced component size, and reduced power requirements; col. 1 lines 56 – 60).

Furthermore, the combination of Birrell in view of Gadre fails to disclose the receiver as a wireless receiver.

Shanahan discloses:

A wireless receiver (i.e. a wireless communication link; col. 3 line 20).

It would have been obvious to one of ordinary skill in the art to combine Shanahan's wireless transfer method with the modified processor of the combination in order to effectively transfer audio information over the computer jack of the combination. One would have been motivated to do so to eliminate the need for a wired connection thus allowing a quicker and more convenient connection.

Furthermore, the combination fails to disclose a vehicle and a media player/recorder physically connected with the vehicle.

Lau discloses an audio/visual server that communicates with an automobile stereo head unit (entire document). Adapting the combination to facilitate connection with an automobile as taught by Lau reads upon the limitation of a vehicle and a media player/recorder physically connected with the vehicle.

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Lau to the combination. One would have been motivated to do so to provide users with a player that allows them to easily and conveniently play downloaded songs in their automobile; col. 1 lines 63 – 657 and col. 2 lines 1 – 8 in Lau.

Regarding **Claims 2, 29, 57 and 64**, in addition to the elements stated above regarding claims 1, 28, 54 and 61, the combination further discloses:

the media data is encoded by a process that compresses the media data (i.e. compressed audio data is received from a host computer that compresses the audio data col. 4 lines 38 – 45 in Birrell);

the encoded media data is decoded by a process that decompresses the media data (i.e. the processing unit decompresses a portion of the audio data stored in the RAM; col. 4 lines 30 – 35 in Birrell).

Regarding **Claims 3, 58 and 65**, in addition to the elements stated above regarding claims 1, 54 and 61, the combination further discloses:

wherein the processor comprises a single integrated circuit (i.e. applying the processor and components of Birrell as taught by Gadre; Gadre discloses implementing many DSP functions on one single integrated circuit col. 1 lines 56 – 60; reads upon this limitation).

Regarding **Claims 4 and 30**, in addition to the elements stated above regarding claims 1 and 28, the combination further discloses:

a read channel responsive to the storage controller to read the data from the storage device (i.e. the CPU and the disk controller are coupled to the same bus allowing transferring from the disk to the CPU; Fig. 1 elements 102 and 106 in Birrell).

Regarding **Claims 5 and 31**, in addition to the elements stated above regarding claims 1 and 28, the combination further discloses:

a memory to store the encoded media data retrieved by the storage controller (Fig. 1 element 108).

Regarding **Claims 6, 32, 59 and 66**, in addition to the elements stated above regarding claims 5, 31, 54 and 61, the combination further discloses:

wherein the digital signal processor comprises a decoder to decode the retrieved encoded media data (i.e. the processing unit decompresses a portion of the audio data; col. 4 lines 30 – 35).

Regarding **Claims 7 and 33**, in addition to the elements stated above regarding claims 1 and 28, the combination further discloses:

storing a process for decoding the encoded media data for a selected code (i.e. a ROM that stores a decompression procedure for decompressing compressed audio data; col. 5 lines 22 – 24 in Birrell).

Birrell in view of Gadre does not explicitly disclose storing the process on the storage device as claimed in claim 1. However, Examiner takes official notice that it would have been obvious to one of ordinary skill in the art at the time of the invention to store the procedures in the ROM instead of in the storage device. Both the ROM and the disk are non-volatile memory devices and therefore are suitable to store system procedure programs. It would be an obvious variation to store the programs instead on the disk. One would have been motivated to do so in order to manufacture the combination of Birrell in view of Gadre with less parts and thus making it less costly as the ROM would not be required if the programs were stored instead on the disk.

Regarding **Claims 10 and 36**, in addition to the elements stated above regarding claims 1 and 28, the combination further discloses:

wherein the processor obtains the encoded media data from the signal representing the encoded media data (i.e. the processing unit decompresses a portion of the audio data stored in the RAM; col. 4 lines 30 – 35 in Birrell).

Regarding **Claims 11 and 37**, in addition to the elements stated above regarding claims 1 and 28, the combination further discloses:

a wireless transmitter to transmit the encoded media data (i.e. the connection via Birrell is done using Shanahan's wireless transmission as shown in the rejection of claim 1).

Regarding **Claims 12 and 38**, in addition to the elements stated above regarding claims 1 and 37, the combination fails to explicitly disclose wherein the wireless transmitter transmits the encoded media data while the output circuit outputs the decoded media data form the processor.

However, Shanahan discloses the claimed transferring method while Birrell discloses the claimed playback method and the examiner takes official notice that it would have been obvious to one of ordinary skill in the art to do this at the same time. One would have been motivated to do so in order for a user to preview an audio file that is currently being transferred in a streaming type of transfer which is well known in the art (i.e. online streaming).

Regarding **Claims 13 and 39**, in addition to the elements stated above regarding claims 1 and 28, the combination further discloses:

wherein the storage device stores a list of identifiers of desired encoded media selections (i.e. information about the disk storage location of each track is stored in the table of contents on the hard disk; col. 4 line 65 in Birrell);

wherein the wireless receiver receives a signal representing an identifier of an offered encoded media selection (i.e. the host computer can alter the table of contents via the computer jack; col. 5 liens 4 – 8 in Birrell and col. 3 line 20 in Shanahan);

wherein the storage device stores the offered encoded media selection when the identifier of the offered encoded media selection corresponds to the identifier of one of the desired encoded media selections (i.e. each track may be stored on the hard disk; col. 4 lines 49 – 50 and the host computer can alter the table of contents via the computer jack; col. 5 liens 4 – 8 in Birrell; and the programmer programs the data into the memory of the portable device; col. 3 liens 30 – 37 Shanahan).

Regarding **Claims 14 and 40**, in addition to the elements stated above regarding claims 13 and 39, the combination further discloses:

a wireless transmitter to transmit a signal representing the identifiers of the desired encoded media selections (i.e. in the combination, the host computer can access the table of contents via the computer jack; col. 5 liens 4 – 8 in Birrell via Shanahan's wireless connection).

Regarding **Claims 15 and 41**, in addition to the elements stated above regarding claims 1 and 28, the combination further discloses:

a wireless transmitter (the wireless connection in Shanahan)

wherein the storage device stores a list of identifiers of desired encoded media selections (i.e. information about the disk storage location of each track is stored in the table of contents on the hard disk; col. 4 line 65 in Birrell);

wherein the wireless receiver receives a signal representing a request for a sought encoded media selection, the request including an identifier of the sought encoded media selection (i.e. the host computer can access the table of contents to replace or update it; col. 5 lines 4 – 8 in Birrell)

wherein the wireless transmitter transmits one of the shared encoded media selections when the identifier of the sough encoded media selection corresponds to the identifier of the one of the shared encoded media selections (i.e. the data state above is sent over Shanahan's wireless connection; which includes the media and the contents)

Regarding **Claims 16 and 42**, in addition to the elements stated above regarding claims 15 and 41, the combination further discloses:

wherein the wireless transmitter transmits a signal representing the identifiers of the shared encoded media selections (i.e. the host computer can access the table of contents to replace or update it; col. 5 lines 4 – 8 in Birrell).

Regarding **Claims 21 and 47**, in addition to the elements stated above regarding claims 1 and 28, the combination further discloses:

a display unit (Fig. 1 element 118 in Birrell);

wherein the storage device stores a list of desired items of interest (i.e. a table of contents col. 4 lines 49 – 65 in Birrell);

wherein the wireless receiver receives a signal representing an offered item of interest (i.e. the host computer can alter the table of contents via the computer jack; col. 5 lines 4 – 8 in Birrell over Shanahan's wireless transmitter)

wherein the display unit indicates a match when the offered item of interest corresponds to one of the desired items of interest (i.e. a CPU; Fig. 1 element 102; and the table of contents can be viewed on the display, allowing the user to select tracks to be played; col. 4 lines 66 – 67 and col. 5 lines 1 – 5).

Regarding **Claims 24 and 50**, in addition to the elements stated above regarding claims 21 and 47, the combination further discloses:

wherein the wireless transmitter transmits a signal representing the desired items of interest (i.e. the host computer can alter the table of contents via the computer jack; col. 5 lines 4 – 8 in Birrell over Shanahan's wireless transmitter).

Regarding **Claims 56 and 63**, in addition to the elements stated above regarding claims 55 and 62, the combination fails to explicitly disclose wherein the non-volatile memory comprises a flash memory.

Birrell discloses that one of ordinary skill in the art will recognize that any suitable non-volatile storage medium could be used in place of the hard disk used in the prefer embodiment. It is notoriously well known that flash memory is non volatile. AS such,

the Birrell reference makes obvious any implementation of a flash memory in place of the hard disk. It would be desirable to use a flash memory in place of the hard disk as flash memory is solid state and does not have moving parts as a hard disk does an thus is easier through movement.

Claims 8, 34, 60 and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent 6,308,253) in view of Shanahan (U.S. Patent 6,496,692) and in further view of Lau (U.S. Patent 6,772,212) and in further view of Yanagihara (U.S. Patent 6,233,393).

Regarding **Claims 8, 34, 60 and 67**, in addition to the elements stated above regarding claims 7, 33, 59 and 66, the combination does not explicitly disclose wherein the digital signal processor determines a code of the encoded media retrieved by the digital signal processor wherein the process for decoding the encoded media data is retrieved from the storage device in accordance with the determined code; wherein the decoder decodes the encoded media data in accordance with the retrieved processes

Yanagihara discloses that the general controller determines the compression such as one of MPEG audio, Dolby AC-3, and Linear PCM and sets a decoder in accordance with the data received. Applying this to the components of the combination reads upon the limitations of wherein the digital signal processor determines a code of the encoded media retrieved by the digital signal processor wherein the process for

decoding the encoded media data is retrieved from the storage device in accordance with the determined code; wherein the decoder decodes the encoded media data in accordance with the retrieved processes.

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement Yanagihara's general controller on the modified CPU of the combination in order to determine a type of media compression. One would have been motivated to do so to enable the player of the combination to be able to play a number of various audio files in different compression formats. With the lack of a standard compression technique in digital audio encoding, multiple formats have been developed (i.e. mp3, AAC, ADPCM, windows media audio, real audio, etc...) and it would have been desirable to have a player such as Birrell's to be enabled to play the different media.

Claims 9 and 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent 6,308,253) in view of Shanahan (U.S. Patent 6,496,692) and in further view of Lau (U.S. Patent 6,772,212) and in further view of Terui (U.S. Patent 5,903,871).

Regarding **Claims 9 and 35**, in addition to the elements stated above regarding claims 1 and 28, the combination does not disclose an input circuit to receive unencoded media data, wherein the digital signal processor comprises an encoder to

encode the unencoded media data and wherein the encoded media data encoded by the digital signal processor is stored on the storage device.

Terui discloses:

wherein the media/player recorder has an input circuit to receive unencoded media data (i.e. a microphone for converting voice to an electric signal and an analog to digital converter for converting it to a digital signal; col. 3 lines 4 – 12);

wherein the digital signal processor comprises an encoder to encode the unencoded media data (i.e. the digital signal is compressively transformed; col. 3 lines 25 – 29); and

wherein the encoded media data encoded by the digital signal processor is stored on the storage device (i.e. recording the voice data to the recording media; col. 4 lines 50 – 60).

It would have been obvious to one of ordinary skill in the art to add the features of Terui to the elements of the combination in order to integrate a portable voice recorder into the portable player of the combination. One would have been motivated to do so in order to enhance the operation of the player of the combination to provide a voice recording and reproducing apparatus which can easily store and manage a voice file (Terui col. 1 lines 48 - 50).

Claims 17, 18, 43 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent

6,308,253) in view of Shanahan (U.S. Patent 6,496,692) and in further view of Lau (U.S. Patent 6,772,212) and in further view of Kaloi (U.S. Patent 5,511,000).

Regarding **Claims 17 and 43**, in addition to the elements stated above regarding claims 1 and 28, the combination does not disclose an interface to receive a signal representing biometric data; and wherein the storage device stores the biometric data.

Kaloi discloses:

an interface to receive a signal representing biometric data (i.e. an electronic playback system with an input to monitor heart rate; col. 6 lines 45 – 49); and

wherein the storage device stores the biometric data (i.e. the SSRPD information is stored to a RAM abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Kaloi's sensor with the combination. One would have been motivated to do so to allow users of the combination to monitor heart rate during exercise to maintain a desired level.

Regarding **Claims 18 and 44**, in addition to the elements stated above regarding claims 17 and 43, the combination does not explicitly disclose wherein the interface transmits a signal representing the biometric data stored on the storage device. However it would have been obvious to one of ordinary skill in the art to do so as the means were available with the combination. One would have been motivated to allow

the modified player of the combination to transmit the biometric data to the main computer in order to store it to compare previous workouts and notice trends.

Claims 19, 20, 45 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent 6,308,253) in view of Shanahan (U.S. Patent 6,496,692) and in further view of Lau (U.S. Patent 6,772,212) and in further view of Colson (U.S. Patent 6,181,994).

Regarding **Claims 19 and 45**, in addition to the elements stated above regarding claims 1 and 28, the combination does not disclose an interface to receive a signal representing vehicle diagnostic data; and wherein the storage device stores the vehicle diagnostic data.

Colson discloses an interface to receive a signal representing vehicle diagnostic data (Fig. 4); and

wherein the storage device stores the vehicle diagnostic data (Fig. 1 element 20)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Colson's automotive sensor with the combination. One would have been motivated to do so to allow users of the combination to monitor automotive performance and run sophisticated diagnostic programs.

Regarding **Claims 20 and 46**, in addition to the elements stated above regarding claims 19 and 45, the combination does not explicitly disclose wherein the interface transmits a signal representing the vehicle diagnostic data stored on the storage device. However it would have been obvious to one of ordinary skill in the art to do so as the means were available with the combination. One would have been motivated to allow the modified player of the combination to transmit the biometric data to the main computer in order to store it to compare various performance trends.

Claims 22, 23, 48 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent 6,308,253) in view of Shanahan (U.S. Patent 6,496,692) and in further view of Lau (U.S. Patent 6,772,212) and in further view of Lazar (U.S. Patent 5,818,389).

Regarding **Claims 22 and 48**, in addition to the elements stated above regarding claims 21 and 47 the combination fails to excite disclose a directional antenna to determine a direction to a transmitter of the signal representing the offered item of interest and wherein the display unit displays the direction.

Lazar discloses:

a directional antenna (fig. 1 element 12) to determine a direction to a transmitter of the signal representing the offered item of interest (i.e.. the directional antenna is

rated and signals are measured by the spectrum analyzer in the direction and measured signals are stored by the computer; col. 7 lines 15 – 20); and

wherein the display unit displays the direction (i.e. the computer software records and reads out the data; col. 7 lines 1 – 15).

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Lazar to the combination. One would have been motivated to do so to provide a more reliable antenna that enabled better signal reception.

Regarding **Claims 23 and 49**, in addition to the elements stated above regarding claims 21 and 48 the combination further discloses:

a wireless transmitter to transmit contact information to the transmitter of the signal representing the offered item of interest (i.e. the host computer can access the table of contents via the computer jack; col. 5 liens 4 – 8 in Birrell over Shanahan's wireless transmitter).

Claims 25, 26, 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent 6,308,253) in view of Shanahan (U.S. Patent 6,496,692) and in further view of Lau (U.S. Patent 6,772,212) and in further view of Yamagami (U.S. Patent 6,334,025)

Regarding **Claims 25 and 51**, in addition to the elements stated above regarding claims 1 and 28, the combination fails to explicitly disclose a digital camera having an image sensor, wherein the digital signal processor encodes image data representing an image captured by the by the image sensor and wherein the storage controller stores the encoded image data on the storage device.

Yamagami discloses:

a digital camera having an image sensor (i.e. an apparatus for processing audio and image data with an image sensing elements; Fig. 1);

wherein the digital signal processor encodes image data representing an image captured by the by the image sensor (i.e. the image is subjected to an A/D conversion; col. 6 lines 14 – 16);

wherein the storage controller stores the encoded image data on the storage device (i.e. storing the images on a recording medium; col. 6 line 25 – 29).

It would have been obvious to one of ordinary skill in the art to add the features of a camera as taught by Yamagami to the portable media player of the combination. It would have been desirable to do so to provide a digital audio player with the capability of audio and video recording and reproducing in the same device which was well known in the art at the time of the invention, see Yamagami col. 1 lines 10 – 15.

Regarding **Claims 26 and 52**, in addition to the elements stated above regarding claims 25 and 51 the combination further discloses:

a display (Fig. 2 in Yamagami and Birrell's display in Fig. 1);

wherein the storage controller retrieves the encoded image data from the storage device (i.e. recording medium interface that retrieves the data for output; fig. 1 element 104)

wherein the digital signal processor decodes the retrieved encoded image data (Fig. 1 element; 26)

wherein the media player/recorder sends a signal representing the decoded image data to the display (Fig. 1 element 23).

Yamagami does not explicitly disclose the same digital processor decodes and encodes the image. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the processor of the combination to do so. One would have been motivated to implement the two devices into a single chip in order to achieve greater performance, lower design and manufacturing costs, reduced component size, and reduced power requirements; Gadre col. 1 lines 56 – 60.

Claims 27 and 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent 6,308,253) in view of Shanahan (U.S. Patent 6,496,692) and in further view of Lau (U.S. Patent 6,772,212) and in further view of Yamagami (U.S. Patent 6,334,025) and in further view of Endo (U.S. Patent 6,763,182).

Regarding **Claims 27 and 53**, in addition to the elements stated above regarding claims 25 and 51, the combination fails to disclose the camera as a digital motion picture camera and the encoded image data represents a motion picture.

Endo discloses:

wherein the digital camera is a digital motion picture camera and the encoded image data represents a motion picture (Fig. 5).

It would have been obvious to one of ordinary skill in the art to modify the camera of the combination in order to make it a motion picture camera as taught by Endo. One would have been motivated to do so in order to record data of multiple categories; Endo col. 1 lines 28 – 39.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 - 67 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-50 of pending Application No. 10/184,505. Although the conflicting claims are not identical, claims 1-67 are provisionally rejected under the judicially created doctrine of they are not patentably distinct from each other because any such portable device can be carried anywhere, for example, it can be transported in a briefcase, pocket, and vehicle to name a few. Any such portable media device as discussed above are well known to be connected and have operation in a vehicle, even if it is merely to connect for power.

Claims 1 - 67 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of copending Application No. 10/184,299. Although the conflicting claims are not identical, they are not patentably distinct from each other because any such portable device can be carried anywhere, for example, it can be transported in a briefcase, pocket, and

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